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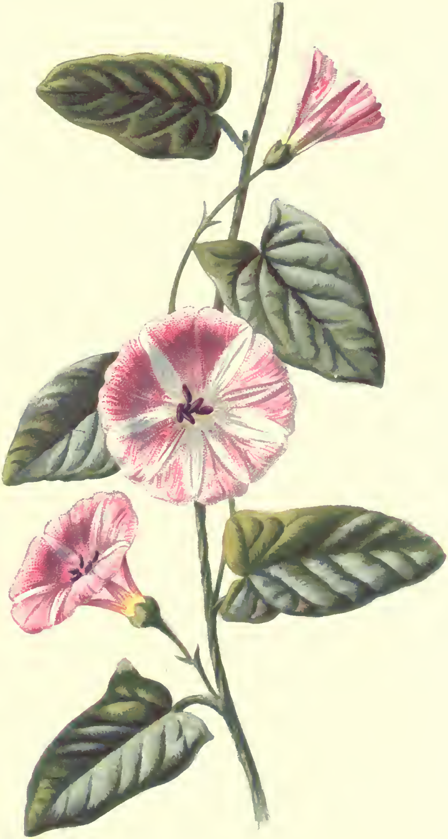

FIELD CONVOLVULUS

FAMILIAR
WILD FLOWERS.

FIGURED AND DESCRIBED BY

F. EDWARD HULME, F.L.S., F.S.A.

> "When forth I go upon my way, a thousand joys are mine,
> The clusters of dark violets, the wreaths of the wild vine;
> My jewels are the primrose pale, the bindweed, and the rose;
> And show me any courtly gem more beautiful than those."
>
> HOWITT

First Series. i.e. v.1

WITH COLOURED PLATES.

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PREFACE.

But few words of introduction can possibly be needed, we are sure, in bringing before our readers the following series of illustrations. The plants we have represented will be to many as old familiar friends, linked in their minds with sunny memories; and nothing that we can say or leave unsaid will either enhance or detract from their enjoyment. To those, however, who have yet to find in a new study this wealth of interest, we would venture to commend our pleasant labours, in the earnest hope that through them they may be led to enter for themselves on this enjoyable pursuit, and find, like ourselves, in the study of Nature an ever-increasing delight. The dustiest roadside walk will then have its attractions, while the fairest scenes will receive an added charm.

SUMMARY.

In the following pages it is our intention to give a brief epitome of each of the plants represented in this volume. We give these details of the various plants in the same order as the plants themselves have succeeded each other. The recognised botanical sequence would in some respects have been preferable, but the present arrangement will at least have the advantage of enabling any of our readers readily to turn to the body of the book and find any particular plant, and thus to obtain fuller details and its pictorial presentment.

In our Summary we have availed ourselves largely of the writings of such masters of botanical science as Hooker, Lindley, and Bentham. All that can be said has been so accurately laid down by such men, that to strive after originality would be but to leave the true path, and, while escaping the charge of building on the foundations of others, to incur the greater responsibility of misleading those whom we profess to guide.

The necessities of our limited space have made great condensation necessary; we have therefore only taken the more salient points.

FIELD CONVOLVULUS, or SMALL BINDWEED, CONVOLVULUS ARVENSIS. *Nat. Ord., Convolvulaceæ.*—Calyx of five sepals, small, broad, and unequal. Corolla campanulate, rose-coloured and white. Stamens five, long filaments, inserted at base of tube of corolla. Style filiform; stigmas two, linear. Capsule two-celled, each cell containing two seeds. Leaves alternate, stalked, ovate, sagittate, lobes often very acute, very variable in form. Peduncle axillary, one or two-flowered; bracts small and at some distance from flowers. Growth twining or prostrate.—Corn-fields, gardens, and hedgerows. June, July, August. Perennial.

FIELD-ROSE, ROSA ARVENSIS. *Nat. Ord., Rosaceæ.*—Calyx leafy, five sepals, imbricated in buds. Corolla of five petals, scentless, white. Flowers ordinarily growing in a cluster at the ends of the branches. Stamens numerous. Styles united in a column. Fruit globular. Leaves shining; leaflets five to seven, serrated. Branches long, very trailing (hence plant sometimes called trailing dog-rose), slender, purplish; hooked prickles.—Woods, hedgerows, and thickets. Flowers throughout the summer.

MEADOW CRANE'S-BILL, *GERANIUM PRATENSE. Nat. Ord., Geraniaceæ.*—Calyx of five sepals, imbricate in æstivation, persistent. Petals five, large, bluish-purple. The inflorescence paniculate. Stamens ten, five short and five long, some often antherless. Ovary five-lobed, terminating in a long beak and five stigmas. Leaves large, divided into five or seven leaflets, coarsely serrated; all leaves on petioles, those of the radical leaves very long. Stems forking, swollen at the nodes, about three feet high. Capsule smooth, composed of five carpels; pedicels bearing fruit deflexed. Rootstock perennial.—Moist meadows and woods.

SILVERWEED, *POTENTILLA ANSERINA. Nat. Ord., Rosaceæ.*—Calyx of ten divisions, the alternate ones being outside the others, and often somewhat smaller. Corolla of five petals, bright yellow. Flowers solitary on slender axillary peduncles, springing from the rooting nodes. Stamens numerous. Carpels numerous. Leaves interruptedly pinnate; leaflets deeply serrate; alternate leaflets very small; both upper and under surfaces often thickly covered with grey and silky hairs. Stoloniferous.—Roadsides, damp pasturage. May, June, July. Perennial.

APPLE, *PYRUS MALUS. Nat. Ord., Rosaceæ.*—Calyx-tube adhering to ovary and urceolate, the upper part five-cleft, woolly. Corolla of five petals, pink and white. Stamens numerous. Styles united at base. Flowers clustered together in an umbel. Fruit fleshy, globose, having five coriaceous two-seeded cells. Leaves stalked, ovate, finely serrate, slightly downy when young. A shrub or small tree.—Hedges and woods. Flowering in spring, and the fruit yellow, mature in autumn, but very austere and sharp.

BORAGE, *BORAGO OFFICINALIS. Nat. Ord., Boraginaceæ.*—Calyx of five segments, very deeply cleft. Corolla rotate, monopetalous, five-cleft, tube very short, throat closed by short scales. Stamens five; filaments short; anthers purplish-black, growing together in a conical form in the centre of the flower. Style filiform. Fruit a nutlet. Inflorescence terminal and axillary cymose. Leaves alternate, exstipulate; stem-leaves obovate, having petioles; the upper leaves sessile, waved, narrower than the lower. The whole plant thickly clothed with grey hairs. Stem stout and succulent, freely branching. One to two feet high. — Biennial. June, July. Rubbish and waste ground near houses.

SCARLET POPPY, or RED-WEED, *PAPAVER RHŒAS. Nat. Ord., Papaveraceæ.*—Calyx of two sepals, falling off on expansion of flower. Petals four, two larger than the other two, bright scarlet, much crumpled in bud. Buds nodding. Stamens very numerous, hypogynous. Stigma sessile, radiate. Capsule globular, glabrous, dehiscent by small valves. Seeds small and very numerous. Leaves very various in size and form; the lower ones large, stalked, pinnately divided; the upper ones small and less deeply cut, exstipulate. An erect and slightly branching annual, bearing its blossoms on long peduncles, the stems having stiff and bristle-like hairs.—Flowers throughout the summer. Railway embankments, corn-fields, and waste ground.

CUCKOO-PINT, *ARUM MACULATUM. Nat. Ord., Araceæ.* Flowers unisexual, numerous, perianth wanting, grouped upon a spadix, the fertile flowers at its base. Stamens indefinite. Spadix terminating in a naked cylindrical column; purplish. The whole surrounded by a spathe; erect, yellowish-green, often edged and blotched with purple. Fruits succulent, scarlet, massed together. Leaves, sheathing the stem by their petioles, radical, sagittate, nerves reticulate, shining, often blotched with purplish-black. Rhizoma large. Corms produced annually.—April, May. Woods and shady hedgerows.

SWEET VIOLET, *VIOLA ODORATA. Nat. Ord., Violaceæ.*— Calyx persistent, five sepals produced at the base. Corolla irregular, five spreading petals, the lowest being elongated into a spur at the base. Flowers deep purple, sometimes reddish-purple or white, and very fragrant. Stamens five; anthers connate. Style one; stigma pointed. Capsules opening in three valves, often produced by minute, almost petal-less flowers that appear later on in the year. Leaves cordate, deeply lobed, stipulate, finely serrate. Peduncle bearing bracts. Rootstock short; lateral scions freely creeping. — Banks, hedges, copses. March, April, May. Perennial.

PRIMROSE, *PRIMULA VULGARIS. Nat. Ord., Primulaceæ.*— Calyx tubular, five-toothed. Corolla regular, salver-shaped, five-lobed, each lobe orbicular and deeply notched, a straight tube. Stamens five, inserted in tube. Style filiform, with capitate stigma. Fruit a capsule. Leaves obovate, crenate, wrinkled, radical. Flower-stalks springing from one point, each bearing a solitary flower. Rootstock stout and fleshy.—Woods, shady hedge-banks, pastures. Flowering throughout the spring. Perennial.

HYACINTH, *AGRAPHIS NUTANS. Nat. Ord., Liliaceæ.*—Perianth campanulate, six-partite; blue, more rarely purple or white. Inflorescence a raceme, each flower having two bracts at the base of the pedicel. Pedicels drooping during flowering, erect when plant in bud or fruit. Stamens six, alternate ones longer. Ovary ovoid; style filiform. Capsule obtusely three-angled, three-valved. Leaves long, linear, channelled, dark green, glossy. Root bulbous. Plant one foot high.—Hedges and woods. April, May.

DANDELION, *TARAXACUM DENS-LEONIS. Nat. Ord., Compositæ.*—All the florets ligulate, bright yellow, outer ones often marked with purple on the back. Involucre of numerous erect and nearly equal inner bracts surrounded by other and larger ones more ordinarily lax and drooping. Peduncles radical, leafless, bearing single heads of flowers. Leaves obovate, spatulate, deeply pinnatifid, runcinate. Pappus pilose. Root long, black, thick, very bitter.—Flowers almost the whole year round. Waste ground and meadows. Perennial. Abundant.

BULBOUS CROWFOOT, or BUTTERCUP. *RANUNCULUS BULBOSUS. Nat. Ord., Ranunculaceæ.*—Calyx of five sepals, greenish-yellow, on expansion of flower closely reflexed, hairy. Corolla cup-like, of five petals, bright yellow, each having a nectary and small scale at its base. Stamens numerous. Ovaries numerous. Fruit an achene. Leaves very variable in form, cut into three lobes, or tripartite; upper leaves with linear segments. Stem one foot high, hairy, swollen at the base; peduncles furrowed.—Meadows. May, June. Abundant. Perennial.

COMMON ORCHIS, *ORCHIS MASCULA. Nat. Ord., Orchidaceæ.*—Perianth irregular, six-partite, five being very similar in form, the sixth, called the lip, differing both in shape and direction, and spurred, three-lobed; outer sepaloid segments acute and reflexed. Flowers in a lax spike, purple, at times fragrant. Spur stout, obtuse. Bracts coloured. Stamens, confluent with the style into a central column, three, two of these abortive. Ovary with three receptacles. Capsule three-valved. Leaves spotted with dark purple, narrow, oblong, sheathing, mostly radical. Root having two tubercles.—April, May, June. Woods and meadows. Perennial.

BROAD-LEAVED GARLIC, *ALLIUM URSINUM. Nat. Ord., Liliaceæ.*—Perianth stellate, of six lanceolate, acute, and spreading segments, white. About twelve flowers in each umbel, arising from a two-leaved spathe. Umbel flat-topped; pedicels rigid. Stamens six, all simple, attached to the base of perianth segments. Ovary three-angled. Style filiform; stigma minute. Leaves broad and flat, all radical, spreading, on long stalks, ovate-lanceolate, sheathing the base of the three-angled flowering stem.—Moist woods and hedgerows in shade. April, May, June. Perennial.

YELLOW IRIS, or WATER-FLAG, *IRIS PSEUDACORUS. Nat. Ord., Iridaceæ.*—The outer segments of the perianth large, spreading, reflexed; the inner segments small, sub-erect; all bright yellow. Stamens three, inserted into the base of the sepaloid segments. Stigmas three, petaloid in character, covering the stamens. Two or three flowers on each stem, each issuing from a sheathing bract. Capsule green, large, three-angled. Leaves mostly radical, ensiform, equitant, stiff, erect, glaucous, upper leaves much smaller than the lower. Rhizoma large, creeping, acrid.—Wet meadows, by the sides of streams. May, June, July, August. Perennial.

RED DEAD-NETTLE, or RED ARCHANGEL, *LAMIUM PURPUREUM. Nat. Ord., Labiatæ.*—Calyx five-cleft, teeth very acute, and as long as the tube, spreading. Corolla purple, throat much dilated; upper lip arched; lower trifid, spreading. Stamens four, inserted in tube of corolla in pairs. Ovary of two carpels. Style slender. Fruit a nutlet. Leaves crenate, cordate, stalked; the lower ones on long stalks, opposite, exstipulate; the upper leaves very close together, often purplish, and covered with fine silky hairs. Whorls of flowers sub-terminal.—In flower almost throughout the year. Hedgerows and waste ground. Annual.

WHITE DEAD-NETTLE, or WHITE ARCHANGEL, *LAMIUM ALBUM. Nat. Ord., Labiatæ.*—Calyx five-cleft, teeth very fine, acute, and spreading. Corolla white, tube bulging at base, throat dilated, upper lip very arched. Six to ten flowers in a whorl. The organs of reproduction similar to those of the last species. Leaves cordate, acuminate, acutely serrate, stalked, often thickly covered with coarse hairs.—On hedge-banks and waste ground. Flowers almost throughout the year. Perennial.

GOLDILOCKS, *RANUNCULUS AURICOMUS. Nat. Ord., Ranunculaceæ.*—Sepals five, pubescent, spreading. Petals five, bright yellow, often imperfect, without the characteristic gland of the greater part of the genus. Stamens many. Carpels many. Style short. Fruit globose, a mass of achenes, downy. Peduncles smooth. Leaves few in number; radicals on long stalks, orbicular or reniform, and only slightly cut into lobes; the stem-leaves cut to the base into linear segments, either entire or very slightly serrate. The whole plant glabrous, without the acridity of many of the genus. Stem erect.—Woods. Flowering in spring. Perennial.

WATER RANUNCULUS, or WATER BUTTERCUP, *RANUNCULUS AQUATILIS. Nat. Ord., Ranunculaceæ.*—Sepals five. Petals five, or at times more, obovate, much larger than sepals, white, each with a yellow spot at base; nectary without a scale. Stamens and carpels numerous. Leaves very various in form: floating leaves (often wanting) circular, lobed; submerged leaves capillaceo-multifid; stipules broad. Flower-stalks axillary, one-flowered. Without the acridity common to many of the plants of the genus. Stems slightly submerged.—Ponds and water-courses. Spring and summer. Perennial.

LARGER PERIWINKLE, *VINCA MAJOR. Nat. Ord., Apocynaceæ.*—Calyx five-partite. Corolla salver-shaped, five broad oblique segments. Cylindrical tube, æstivation twisted, generally purple, but varying in strength of colour. Stamens five; filaments short; anthers two-celled. Stigma one. Ovary of two carpels. Fruit a follicle of two elongated capsules, many-seeded. Leaves evergreen, opposite, entire, ovate, stalked. Flowers growing singly on peduncles springing from the axils of the leaves. Long, trailing, flowerless shoots, rooting; from these the flowering shoots ascend. Spreads with great rapidity.—Woods and shady hedge-banks. April, May, June. Perennial.

LESSER CELANDINE, or PILEWORT, *RANUNCULUS FICARIA. Nat. Ord., Ranunculaceæ.*—Calyx of three sepals. Petals eight, but varying to twelve, golden yellow, very glossy; nectary with a small scale. Flower-stem bearing two or three leaves and a single terminal flower. Leaves undivided, petiolate, mostly radical, cordate, obtuse, angular, or crenate, thick, glossy; petioles with dilated stipular bases. Root having numerous tubers, annually renewed. Carpels large, in globular head.—Damp pastures and woods. March, April, May. Perennial.

HAREBELL, CAMPANULA ROTUNDIFOLIA. *Nat. Ord., Campanulaceæ.*—Calyx ovoid, cut into five segments. Corolla bell-shaped, with five broad and spreading lobes, pale blue or occasionally white. Stamens five, free from corolla; filaments dilated at base; anthers linear. Style one, clavate, pubescent; stigmas filiform. Inflorescence a raceme or panicle, few-flowered; pedicels slender. Root-leaves orbicular or cordate, crenate, soon withering away; stem-leaves entire, linear or linear-lanceolate. Plant glabrous.—Open moorlands, banks, roadsides, old walls, hilly pasturage. July, August, September. Perennial.

GERMANDER SPEEDWELL, VERONICA CHAMÆDRYS. *Nat. Ord., Scrophulariaceæ.*—Calyx four-cleft. Corolla monopetalous, irregular, four-cleft, lower segment much narrower than the others, bright blue. Style capillary. Stamens two. Capsule two-celled, ciliate. Inflorescence a raceme, many-flowered, axillary, one only from each pair of leaves. Bracts linear. Leaves in pairs, nearly sessile, ovate, serrate, hairy, wrinkled.—Hedge-banks, woods. May, June. Perennial.

OX-EYE DAISY, CHRYSANTHEMUM LEUCANTHEMUM. *Nat. Ord., Compositæ.*—Heads of flowers large, those of the disk yellow, the ray white. Flower-heads solitary, on long terminal peduncles. Involucre hemispherical; bracts imbricate, membranaceous at their edges, purple or brown margins. Stems slightly branching, one to two feet high, smooth, erect. Leaves alternate: radical leaves obovate, stalked, coarsely serrate; stem-leaves sessile, narrow, few coarse serrations, sub-pinnatifid.—Dry pastures, railway banks. June, July, Perennial.

COWSLIP, or PAIGLE, PRIMULA VERIS. *Nat. Ord.. Primulaceæ.*—Calyx five-toothed, the teeth broad and obtuse, tubular, campanulate, pale yellowish-green. Corolla funnel-shaped, tube cylindrical, the limb deeply five-lobed, each lobe notched, yellow, spotted at base with orange. Stamens five. Ovary one-celled. Style one, filiform; stigma capitate. Flower-stalks rising above the leaves, and bearing the flowers in an umbel; outer flowers pendulous. Stem cylindrical, downy. Leaves all radical; petioles winged.—Meadows and banks. April, May. Perennial.

BUSH VETCH, VICIA SEPIUM. *Nat. Ord., Leguminosæ.* Calyx, five sepals, gibbous at base, calyx-teeth unequal. Corolla of five petals, irregular, papilionaceous, dull purple. Stamens ten.

Ovary simple. Style simple, with a tufting of hair beneath the stigma on the outer side. Peduncles very short. Inflorescence a raceme, few-flowered, starting from the axils of the upper leaves. Fruit a pod. Stem with prominently-projecting longitudinal ridges, one to two feet high, weak, stipuled. Leaves of six or eight pairs of ovate, truncate, mucronate leaves, the leaf-stalk ending in a branching tendril.—Woods, hedges. May, June, July. Perennial.

HERB-ROBERT, *GERANIUM ROBERTIANUM. Nat. Ord., Geraniaceæ.* Calyx angular, hairy, five-cleft, imbricate in bud, segments erect during flowering, connivent afterwards. Flower of five petals, regular, pink, obovate, entire, clawed. Stamens ten. Ovary five-lobed, five-celled, beaked. Fruit of five carpels. Peduncles two-flowered. Leaves in three or five radiating pinnate segments. Stems much branched. Whole plant hairy and strong-smelling, often turning bright red. Brittle.—Annual. May, June, July, August, September. Waste ground, hedge-banks, old walls.

MARSH MARIGOLD, *CALTHA PALUSTRIS. Nat. Ord., Ranunculaceæ.* Sepals ordinarily five, deep yellow, petaloid. Petals wanting. Stamens numerous. Follicles numerous, many-seeded, Stems thick, rooting at lower nodes, branched, erect or sub-erect. Petioles with stipule-like members at the base. Leaves chiefly radical, cordate, orbicular, reniform, crenate. Flowers terminal. A very variable plant.—Marshy ground, sides of water-courses. March, April, May. Perennial.

DAISY, *BELLIS PERENNIS. Nat. Ord., Compositæ.*—Florets of the disk yellow; florets of the ray white, often more or less tinged with red. Involucre hemispherical, bracts equal, a single row, herbaceous. Ray-flowers female, ligulate; disk-flowers bi-sexual, tubular. Peduncles bearing single flower-heads, leafless, radical. Receptacle conical, pappus wanting. Leaves, all springing from the root, obovate, spatulate, coarsely toothed, petiolate.—Perennial. Meadows and banks. Flowering almost the whole year round, but most freely in the early summer.

HAWTHORN, *CRATÆGUS OXYACANTHA. Nat. Ord., Rosaceæ.*—Calyx-tube urceolate, five-lobed, non-glandular. Petals five, rounded, white or pink. Flowers fragrant, in sessile corymbs. Stamens many; the pink anthers very conspicuous. Styles one to three. Fruit crimson, ovoid, hard, the cells being cartilaginous. Armed with sharp thorns, abortive branches. The leaves very variable in form, petiolate, divided into three or five lobes, serrate. Large and leafy stipules. A shrub or small tree, freely branching.—Perennial. May, June. Hedges and woods.

COMFREY, SYMPHYTUM OFFICINALE. *Nat. Ord., Boraginaceæ.*—Calyx five-partite, valvate in bud. Corolla monopetalous, regular, five-cleft, tubular, largest a little below the middle, purple or yellowish-white. Stamens five, inserted in the tube of the corolla; filaments very short. Style slender; stigma capitate. Scales alternating with stamens. Inflorescence a forked scorpoid cyme; flowers pendulous on small pedicels. Leaves various: radicals broad and large on long-winged petioles; stem-leaves shortly petioled or sessile, ovate, lanceolate, and very decurrent, rough in texture, hairy, dull green. Stem three feet high, freely branching, angular, rough, winged by the decurrent leaves.—River banks and moist ground. May, June. Perennial.

TOAD-FLAX, LINARIA VULGARIS. *Nat. Ord., Scrophulariaceæ.*—Calyx five-cleft; sepals ovate or lanceolate, small. Corolla monopetalous, personate, spurred; mouth closed by projecting palate; spur in a line with the flower. Flower pale yellow, the palate bright orange. Stamens four, attached to tube of corolla. Ovary and capsule having two cells; capsule ovoid. Inflorescence a densely-flowered raceme. Bracts linear. Leaves very numerous, linear-lanceolate, glaucous. Stem erect, one to two feet high.—Hedges and waste ground. July, August, September. Perennial.

WOODY NIGHTSHADE, or BITTER-SWEET, SOLANUM DULCAMARA. *Nat. Ord., Solanaceæ.* Calyx of five divisions. Corolla monopetalous, regular, cleft into five revolute segments, dull purple. Anthers almost sessile, bright yellow, joined into a cone in the centre of the flower round the style; stamens, inserted into corolla, five, and alternating with its segments. Inflorescence a loose cyme. Berries ovoid, crimson. Leaves varying in form, entire: lower ones lanceolate; upper ones hastate, petioled. Stems long, flexuous, climbing or straggling.—Low-lying hedges and moist thickets. June, July, August. Perennial, but long trailing stems dying off in winter.

DAFFODIL, NARCISSUS PSEUDO-NARCISSUS. *Nat. Ord., Amaryllidaceæ.*—Perianth tubular, having six spreading ovate or oblong segments as long as the tube, the crown broadly tubular, its edge irregular, cut, and waved; the segments pale yellow, the crown or nectary golden yellow. Stamens springing from the sides of the tube. Pedicel short, springing from a membranous spathe. Flower solitary. Ovary three-angled, three-celled. Style filiform; stigma three-lobed. Fruit a capsule, turbinate. Leaves, two or three, linear, dark green, glossy, fleshy, radical, not so long as the flower-stems. Root bulbous. —Moist woods and copses. March, April. Perennial.

GROUND IVY. NEPETA GLECHOMA. *Nat. Ord., Labiatæ.* Calyx tubular, ribbed, five-toothed, the upper teeth the longest, recurved. Corolla monopetalous, upper lip bifid, lateral lobes spreading, purplish-blue, tube of corolla twice as long as calyx. Stamens four, the two upper ones the longest. Stigma two-lobed. Flowers four to six, in unilateral whorls, springing from the axils of the leaves, stalked. Stem square. Leaves in pairs, reniform, crenate, stalked, downy, dark green, the lower leaves on much longer stalks than the upper. The whole plant rather rough and hairy to the touch, strong-smelling, creeping and rooting at the base, stretching some distance; flowering stems ascending; branching freely.—Hedges and waste ground. March, April, May. Perennial.

YELLOW HORNED-POPPY, GLAUCIUM LUTEUM. *Nat. Ord., Papaveraceæ.*—Calyx of two sepals, concave. Petals four, one pair larger than the other, very fugacious, crumpled in bud, bright yellow. Stamens numerous; the filaments slender; anthers erect. Stigma sessile, two-lobed. Fruit a pod, ten to twelve inches long. Leaves thick, the lower ones stalked and pinnately lobed, rough, the upper ones shorter, broader, less divided, sinuate, semi-amplexicaul. Stems two feet high, much branched; the whole plant glaucous.—Sandy sea-shore. June, July, August, September. Annual.

LADY'S-SMOCK, or BITTER-CRESS, CARDAMINE PRATENSIS. *Nat. Ord., Cruciferæ.*—Calyx equal at base, four sepals. Petals four, clawed, obovate, pale lilac, large, spreading. Stamens, half as long as petals, six, two shorter than the others, and alternate with petals, the others in pairs. Ovary and style one. Stigma capitate; style short. Inflorescence racemose. Fruit a linear pod. Stems one foot high, stiff and upright. Root-leaves pinnate, the leaflets ovate, the terminal the largest, petiolate; the stem-leaves alternate, pinnate, sub-sessile, the leaflets long and narrow. Rootstock stoloniferous, perennial.—April, May. Moist meadows.

BUGLE, *AJUGA REPTANS. Nat. Ord., Labiatæ.*—Calyx ovoid, five-cleft, ciliate, nearly equal. Corolla irregular, upper lip very small, lower lip long and spreading, tubed, dull purple. Stamens four, projecting beyond upper lip, two lower the longest. Inflorescence whorled in axils of upper leaves. Flowering stem erect, with opposite leaves, ovate or obovate, nearly sessile, the upper ones coloured; the lower leaves on footstalks, small, spatulate. Rootstock throws out creeping scions.—Woods and moist meadows. May, June. Perennial.

WHITE CAMPION, *LYCHNIS VESPERTINA. Nat. Ord., Caryophyllaceæ.*—Calyx five-toothed, in anther-producing flowers cylindrical, in female flowers ovate, monophyllous. Corolla of five petals, clawed, each petal cleft, white. Flowers few, large, usually diœcious, arranged in a loose panicle, open in the evening, fragrant. Stamens ten. Styles five. Ovary one-celled. Capsule ovoid, with ten teeth. Stem two feet high, pubescent, brittle, and somewhat viscid at the joints. Leaves oval, pointed, tapering, hairy, opposite, exstipulate, entire, sessile; the lower ones on stalks. — Hedgerows and fields. June, July, August. Biennial.

DOG-ROSE, *ROSA CANINA. Nat. Ord., Rosaceæ.*—Calyx-tube fleshy, globular, contracted at summit; the sepals, five, reflexed, leafy, imbricate in bud. Corolla of five petals, obovate, notched, pink, fragrant. Stamens numerous; anthers bright yellow and conspicuous. Styles distinct, hirsute. Flowers solitary, or two or three together along the branches. Leaves pinnate, eglandulose, slightly hairy; leaflets, five or seven, ovate, serrate, stipulate. Stems straggling, armed with hooked prickles. Fruit ovoid-urceolate, scarlet.—Hedges and copses. June, July. Perennial. Subject to considerable variation.

BLACK BRYONY, *TAMUS COMMUNIS. Nat. Ord., Dioscoreaceæ.*—Perianth regular, six deeply-cut segments, green. Diœcious. Stamens six, springing from base of perianth, free. Ovary three-celled. Styles three; stigmas lobed. Fruit a berry, scarlet. Inflorescence of male flowers, a slender and branched raceme; of female flower, a short and close raceme. Leaves large, very glossy, cordate, entire. Stems long and twining. Rootstock very large, acrid, externally black, ovoid —Hedges and copses. May, June, July. Perennial.

FOXGLOVE, *DIGITALIS PURPUREA. Nat Ord., Scrophulariaceæ* —Calyx, five large, deeply-cut, unequal segments, persistent round fruit, the upper segment much narrower than the others. Corolla pendulous, campanulate, inflated, unequal; upper lip slightly divided, lower one cut into large rounded lobes, hairy; pink, spotted on inner surface. Stamens four, two longer than the other two. Stigma two-lobed. Capsule ovate, two-celled, many-seeded. Inflorescence an elongate, densely-flowered raceme. Pedicels short, one-flowered; bracts leafy. Stems three to five feet high, occasionally branched in the lower portion.—Biennial. May, June, July, August. Woods and dry banks.

BURDOCK, *ARCTIUM CAPPA. Nat. Ord., Compositæ.*—All florets having tubular corollas, five-cleft, equal, dull purple; tube slender. Anthers exserted; filaments papillose. Pappus short and stiff. Flower-heads in terminal corymbs. Involucre globular, often more or less covered with a soft white wool, the bracts armed with hooked points. Stem about three feet high, stout, and branching freely Lower leaves very large, heart-shaped, stalked, at times slightly serrate; upper leaves smaller, obovate, all often covered on under surface with grey woolly hairs —Waste places and roadsides. July, August. Biennial.

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FAMILIAR WILD FLOWERS.

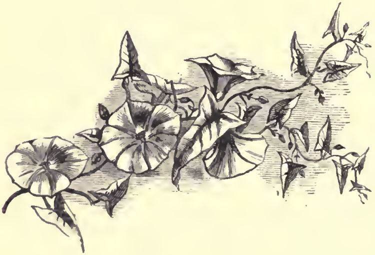
THE FIELD CONVOLVULUS.

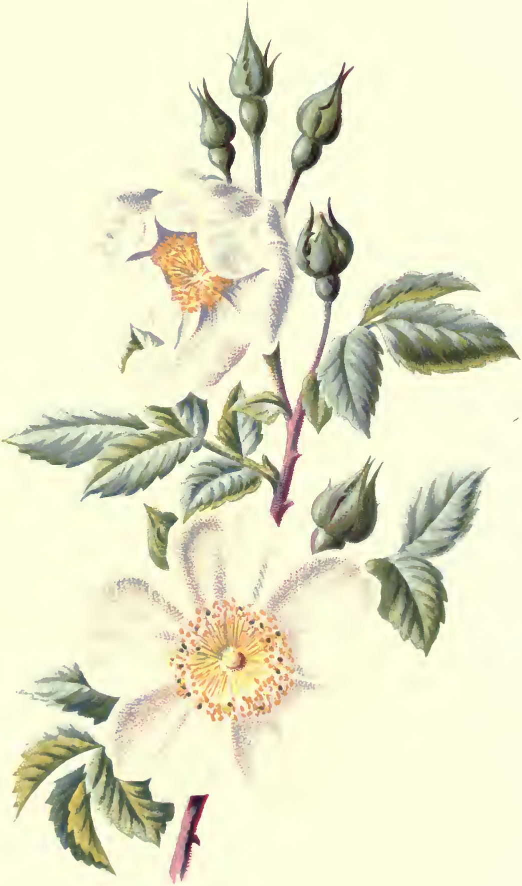
Convolvulus arvensis. Nat. Ord., Convolvulaceæ.

BEAUTIFUL as this flower is, the plant which bears it must fairly be ranked amongst the most troublesome of weeds to the agriculturist. Its roots run very deeply into the ground, and extend over a large area; it is, therefore, exceedingly difficult to extirpate it, and in any attempt to dispossess it the long and rather brittle roots are apt to snap, and portions of them very possibly not attracting notice, and getting buried beneath the soil, very soon grow again as vigorously as ever. No half-measure will meet the exigencies of the case; the plant is only crippled awhile, and in a very short time its dense rosettes of small leaves are seen spreading over the ground as vigorously as before. The field convolvulus is the *Convolvulus arvensis* of science. The generic name is derived from the Latin verb *convolvo,* to twine around or about, and is very descriptive of the general growth of the plant, as it does not, like many climbers, support itself by tendrils, but the whole plant is twisted round the object that supports it, ordinarily a stalk of corn or some such upright form having a rather small diameter; it will never, for instance, be found twining round a gate-post or other such bulky thing. Very frequently, when found on hedge-banks, it rambles amidst the grass and other coarse herbage, and climbs but little, if at all. It is sometimes called the small bindweed; small, because there is another species, the especial foe of the gardener, having much larger flowers, of which also we shall give an illustration in our series; and bindweed, from this habit of twining round and matting the other plants in its neighbourhood together. The specific name *arvensis* is derived from the Latin word *arvum,* signifying a corn-field. The field convolvulus, the plant now more immediately under consideration, is one of the characteristic flowers of the corn-field, though it is found very commonly in other arable ground, waste places, and hedge-banks. Its blossoms, veined with delicate pink, are very sensitive to sunlight, and expand readily to the beams of light and warmth, but remain closed whenever the sky is cloudy and overcast—a peculiarity that gave us a good deal of trouble in making our drawing, as the most beautifully-expanded blossoms, when picked and brought home, closed almost directly. All the various kinds of convolvulus present this same feature; they therefore become, in spite of the beauty of many of the garden species, quite unfit for the flower-vase or any kind of floral decoration. The large deep blue or purple blossoms that look so beautiful in themselves, and are so valuable in colour effect from the comparative dearth of blue flowers, especially at the time of year when they are in blossom, close almost directly they are gathered, and leave but an unsightly gap as the token of their past occupation of the spot they were intended to fill.

The leaves of the field convolvulus are very variable in form; those represented in our drawing may be considered as very fairly typical, but they are at times found with the extremity of the leaf far more acute, and the lateral lobes at the base much more elongated. The leaves are given off singly from the stem, and from their axils, the point at which their stems join the main stem, the flower-stalks rise. These flowering stalks generally fork into two smaller ones, each bearing a bud; one of these lesser stems is almost invariably smaller than the other, and bears a bud in an earlier stage of development, so that though the buds are found in pairs on the flower-stems, the flowers are, as shown in our drawing, found singly. We do not remember ever to have seen both the flower-buds of the flowering stem equally ready to expand. At the point where the flower-stem forks off, two very small scale-like forms are found, and on one, and always one only, of the little branchlets thus thrown off a second pair of these small bracteal forms will be seen. In some plants these flowering stems do not fork into two, but, nevertheless, at about the same point as in the others—that is to say, at the point where one, judging by observation of other specimens, would expect to see it divide off into two—the pair of small bracts is found.

In one piece of this plant that we gathered, when searching for material for our plate, the whole of the flowering stems, which were as many as nine in number, bore but one bud each. This probably arises from a starved condition of things, as in such a case the leaves also are but small, and the whole plant seems in but a feeble state of development. The flowers are of the form known as campanulate, or bell-shaped, though they are by no means so characteristically bell-like as the well-known blossom of the hare-bell and several other equally familiar species. The blossoms vary a great deal in colour; in some plants they are almost entirely white, while in others the normal delicate pink becomes intensified almost to crimson. As these variations of colour may readily be noticed as occurring in the plants covering a very limited area of ground, it becomes difficult to account at all satisfactorily for so great a difference in plants that apparently are all under the same conditions of growth. The plant is a perennial. It generally begins flowering about the first week in June, after which date it may be found in blossom throughout the summer and autumn months.





FIELD-ROSE

THE FIELD-ROSE.

Rosa arvensis. Nat. Ord., Rosaceæ.

OUR wild roses present a somewhat difficult field of study to one who is commencing to observe wild flowers, since even professed botanists differ very much in opinion as to the number of species that may fairly be considered indigenous to Britain. One authority reduces all the varying forms to five specific types, while another, seeing specific differences in what appear to the first mere variations more or less permanent, amplifies the list to such an extent that some nineteen or twenty species are included in it. All authorities are, however, agreed in recognising as legitimate species the common dog-rose, elsewhere figured amongst our illustrations, and the field-rose, or trailing dog-rose, the subject of our present plate.

The field-rose is the *Rosa arvensis* of the botanist. The generic name, *Rosa*, will be found explained in our remarks on the common dog-rose, while the specific title, *arvensis*, signifies that which pertains to the fields, being derived from the Latin word *arvum*, a corn-field; we meet with the word again in the *Anagallis arvensis*, or pimpernel, the *Ranunculus arvensis*, or corn-crowfoot, and many other plants.

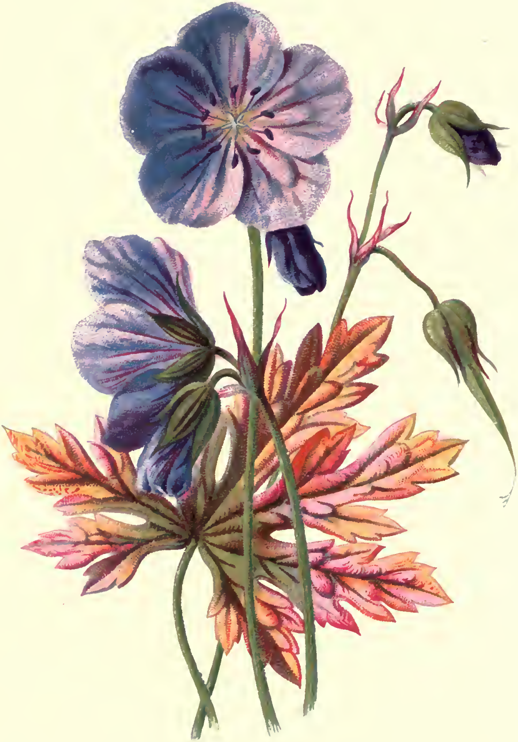
The field-rose is ordinarily a much more trailing plant than the common dog-rose, a feature that distinguishes it in a marked degree from all our other wild roses. The general form of the leaves is much the same as in the dog-rose, but they are often rather smaller and more shining in surface; the prickles, too, are somewhat smaller in size, but more hooked. The flowers are white, with comparatively little or no scent, and though at times solitary, are more commonly found in small bunches of three or four at the ends of the branchlets. It will readily be understood that these small bunches rarely consist entirely of expanded flowers, but more ordinarily of buds and blossoms in various stages of development. The fruit is much more globular in form than that of the common dog-rose, which is ordinarily described as resembling a small flask. The field-rose is very widely distributed throughout England, but is much more sparingly met with in Scotland and Ireland. It ordinarily comes into blossom somewhat later in the summer than the dog-rose, and may also be found for some time after that species has ceased to bear its flowers. From the profusion of its blossom it is a great ornament, not only when the hedgerow is laden with its long trailing stems and beautiful flowers, but also later on, in the autumn, when these flowers have passed away, and are replaced by the scarlet fruit, the "hips," as these and other wild rose seeds are called, a word derived from *hiope,* their Anglo-Saxon name. The fruit of the sweet-briar, an allied species, is egg-shaped, its broader part being uppermost or farthest from the stem. The stems of the various kinds of wild rose may often be found tufted with curious little balls of crimson moss.

These result from the puncture of a small insect, in much the same way as the galls of the oak are formed. In the Middle Ages these rose-galls were held in high repute in medicine, under the name of *bedeguar*, but this repute has, in these later days, gone the way of much else of the wisdom of those early times.

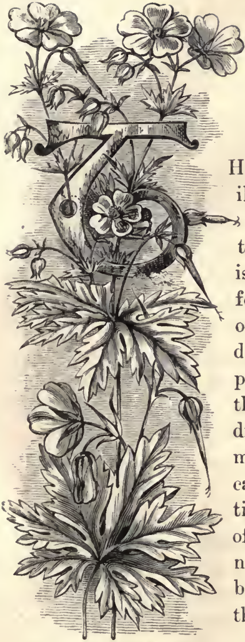
Five forms of rose are sufficiently distinct to present no difficulty in their identification by the amateur botanist —the dog-rose, the field-rose, the sweet-briar, the burnet rose, and the downy rose. The first two of these need no further comment. The sweet-briar, or *R. rubiginosa,* will ordinarily be readily recognised by the well-known odour of its foliage. It is chiefly found in the South of England, and appears to thrive best on the chalk. It is sometimes cultivated in gardens for its fragrance—a fragrance that is often very faint in wild specimens. The burnet rose is the *R. spinosissima.* The specific name signifies exceedingly prickly, the Latin superlative being used to give emphasis to the painful fact that all its stems are armed with numerous straight thorns. The flowers are rather small, and usually solitary. The whole plant rarely attains to more than a foot or so in height, and is generally found either on waste land near the sea, or more seldom on dry heath-clad hills inland. The fruit is so deep a purple as to appear almost black. It has been used in the preparation of dye, and gives a beautiful violet, though, like most vegetable colours, it is too fugitive in its nature to be of real economic value. It is called the burnet rose, because, its leaves being small, and having seven or nine leaflets to each leaf, are very similar in general form to those of a plant called the burnet. The downy rose, *R. villosa,* is so called from the downy texture of both sides of the leaves;

the specific name is a Latin adjective conveying this meaning. Its flowers are white or pale pink. The fruit, which is globular, is covered with fine prickles. The downy rose is common in Scotland, Ireland, and Wales, but is only found in England in the north and west. It is a species subject to a considerable amount of variation of form, and five or six other species have been based on these modifications of the type.

The various species of rose furnish several useful preparations. The "hips" have the honour of a place in the modern pharmacopœia. The outer part is succulent and pulpy, and of a sweetish acidulous taste, the woolly or hairy lining must, however, be carefully removed, as it is very irritant in its nature. The pulp is beaten up with three times its weight of white sugar; it is then the conserve of roses, or *Confectio Rosæ Caninæ* of the dispenser. It is slightly refrigerant, but is chiefly valuable as a vehicle for other medicines.



MEADOW CRANE'S-BILL



THE MEADOW CRANE'S-BILL.

Geranium pratense. Nat. Ord., Geraniaceæ.

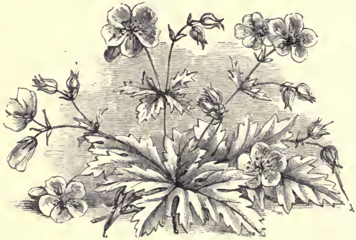
THOUGH the subject of our present illustration is much more confined to special localities than many of the other flowers we have selected, it is, when encountered at all, usually found in great profusion. We had ourselves been interested in our indigenous flora for years before the plant came under our notice, though these present pages are written in a district where it is one of the commonest plants. Where it occurs it can scarcely fail to command attention, not merely from the profusion of it being itself sufficient to enforce notice, but from the large size and beautiful colours of its blossoms, and the large clumps of richly-cut leaves—a deep green in the summer months, and in those of autumn crimson, orange, and purple in countless varying tints. The plant appears to thrive best where there is a considerable amount of moisture, hence it will be found in lowly-lying pasturage, and in rocky and mountainous districts near the numerous streams that, as they dash over their stony beds or fall in glittering cascades, scatter their spray over the banks, and cause a constant humidity that is particularly welcome to many species of flowering plants and ferns. The meadow crane's-bill again may often be found in woods and thickets, spots that at once strike us, on entering them from the hot and dusty road, with a feeling of ordinarily delicious contrast, though the chilly dampness that may at times exert a too penetrating power is as injurious to most plants as it is disagreeable to ourselves. When growing under the circumstances we have pointed out, the plant, though possibly more luxurious than when found by the roadside, has not in autumn the beautiful richness and variety of colour in the foliage that is seen in those that have been more exposed to the direct rays of the sun, that great cause of all lovely colour, whether in the sevenfold tints of the bow in heaven, the soft bloom of the ripening peach, or in the commonest wayside blossom that turns its little earth-born stars to the great source of life, and light, and beauty.

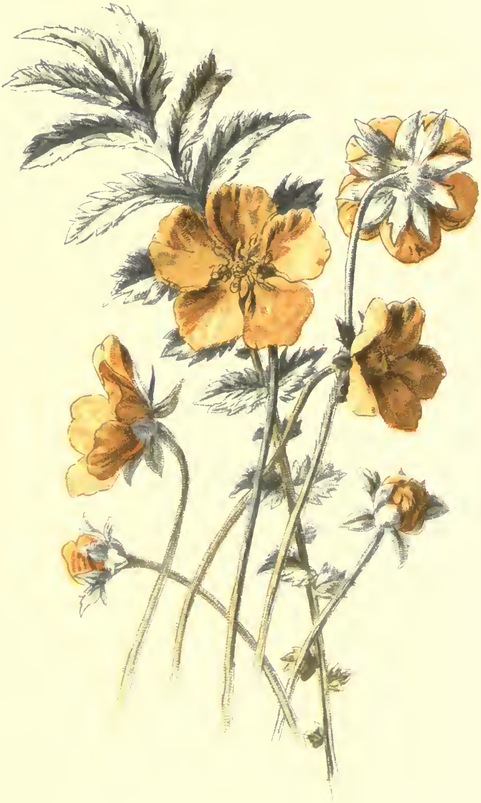
The meadow crane's-bill may chiefly be found in most parts of southern and central England; in the north of England and in southern Scotland it may also be met with; while in the north of Scotland and throughout Ireland, the latter a land that in many places would appear to be especially adapted to its favourite conditions of growth, it is quite unknown. From its beauty it is not uncommonly transferred to the garden. The plant will ordinarily be found in flower by about the end of May, and lasts in fair blossom for some considerable time, a few isolated specimens here and there being procurable until quite late in the autumn. The deeply-cut leaves, and the large size and light bluish-purple tint of the blossoms effectually distinguish it from all our other species of crane's-bills.

The meadow crane's-bill is the *Geranium pratense* of scientific nomenclature. The generic name is derived from the Greek word for a crane, *geranos*, the form of the fruit being supposed to be somewhat suggestive of that of the bill of a crane, whence also its common English name crane's-bill. The resemblance is but faint, but in the olden times they do not appear to have been very critical on these points, and a name once given is not readily shaken off again, even if a better could be suggested in its place. The specific name *pratense* is a Latin word, and signifies that which grows in meadows; its ordinary appellation, the meadow crane's-bill, is therefore a much more literal reproduction of its botanical title than is often the case in plant names.

The large size of both flower and leaf prevents our giving much of the growth of the plant on our plate, and, indeed, the limited space at our disposal has, even as it is, compelled us to do but scant justice, for though the flowers are of natural size, the leaf is much smaller than an average specimen. It will be noticed that a line that would just go round and enclose the leaf within it would not be far from a circle, and in a fairly representative leaf such a circle would be from six to eight inches in diameter.

The meadow crane's-bill is a perennial. The stems fork a good deal, and are somewhat swollen at the various joints; they attain to almost a yard in height. The leaves are dark green, and from the absence of all glossiness appear somewhat dull in effect; they are very deeply divided, ordinarily into five or seven radiating segments, and these in turn are divided into smaller masses. The flowers are of a rather light tint of bluish-purple, veined slightly with a purple inclining to red; at times a variety having pure white flowers may be found. This variation of the flowers would appear to arise from no weakness of growth on the part of the plant, as the white-flowering variety when discovered will ordinarily be found to be quite as robust as the normal form, and would, in fact, were it out of blossom, be indistinguishable. We have seen them planted together in clumps in country gardens, and the association is a very effective one, the pure white and delicate lilac-purple blossoms blending admirably together. After the flower has died away the stem that supported it falls, and gives a very quaint angularity of effect to the head of blossoms, a feature that is prominently shown in our illustration. The flowers grow in pairs, though they do not always expand simultaneously.





SILVER-WEED

THE SILVERWEED.

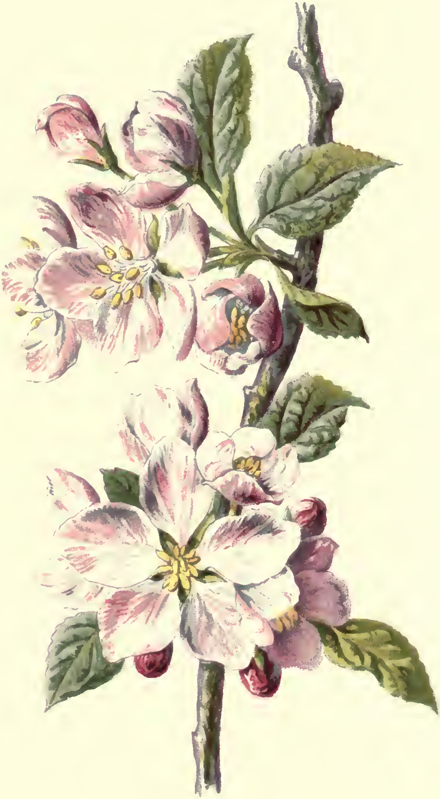
Potentilla anserina. Nat. Ord., Rosaceæ.

FROM the beauty of its leaves and the large size of its flowers, the silverweed is sufficiently attractive and conspicuous to be familiar to most lovers of plants. The name silverweed is an especially appropriate one, as the foliage is so thickly clothed with a silky white down or felting of soft hair that the general effect has the greyish white appearance that is noticeable in frosted silver, and the plant is for the same reason called by some of the older writers the argentina, from the Latin word *argentum*, silver. The scientific name of the plant is *Potentilla anserina*, the first or generic name being derived from the Latin adjective *potens*, powerful, in allusion to the medicinal properties of some of the species forming the genus, while the second or specific name, *anserina*, is from the Latin *anserinus*, that that pertains to a goose. We are quite unable to explain why such a specific title should have been affixed to the plant, possibly it may be because geese are fond of it, though on this point we can only venture on a surmise; possibly because it is flowering about the time that the little goslings—little masses of grey and yellow down—are running amidst its flowers and foliage, and the similarity of colour may have struck some early observer. The difficulty of explaining the meaning of the name is only intensified, not removed, when we find some of the early herbalists calling it the goosewort. Another common name for it is the prince's feather, a by no means bad name, as the long pinnate leaves have a curve in the central axis, and a drooping of the ends of the individual leaflets that is very suggestive of the ostrich feathers that form the crest of the Prince of Wales, and the grey effect of the leaves, so different in appearance from the ordinary shades of green met with in the foliage of most plants, adds to the resemblance. The meaning of the word pinnate, applied botanically to leaves of this form, a central line with lateral leaflets given off on either hand, is simply feathery—the Latin word *pinna*, a feather, supplying the root of the word. Though the name, so far as we are aware, is never used now, it is in old books called the trailing tansy, from a certain degree of likeness, very slight however, which it bears to the tansy. The plant is very abundant in Britain, and indeed throughout the temperate regions of the world, extending from Lapland to the Azores, and being equally at home in regions so remote from ourselves and from each other as Armenia, China, New Zealand, and Chili. All soils appear equally congenial to its growth. Like the periwinkle, the subject of another plate, the silverweed spreads rapidly by means of its long creeping runners, and is, therefore, when found at all, met with in profusion. The leaves are what is botanically termed interruptedly pinnate, that is to say, there is not a steady increase of size in the pairs of leaflets as they succeed each other, as in the case of the ash and many other plants, but the longer leaflets are, as will be seen in our drawing, separated from each other by others very much smaller. This form of leaf may also be very well seen in the avens, the agrimony, and several other species, and is at all times a beautiful form, the little alternating leaflets giving great richness and a certain piquancy that is very pleasing. The leaves vary a good deal in the silky greyness that is so characteristic a feature, and the under side is generally greyer in effect than the upper. When growing under adverse circumstances, the plant is greatly dwarfed, and the leaves will then be often but from two to three inches long; they are, however, as rich in form as those grown under more favourable conditions, and are generally more characteristically grey than those which, from having grown in the midst of other foliage in the hedge-bank have become attenuated, and have in other ways lost some of their individuality, and are less typical of the plant than when developed in a more open situation. The very marked and deep serration of the outlines of the leaflets is another noticeable feature. The flowers are thrown up on long stalks, each stem bearing but one blossom, and it will be perceived that while the parts of the corolla are five in number, the calyx is cleft into ten divisions.

The silverweed is abundant in poor pasturages, particularly where the ground is naturally damp and low, but it may also be very freely found by the dusty roadside; in such a locality the plant is but poorly developed, and never attains to any great size, spreading laterally, but scarcely rising at all from the surface of the road, and having the flower-stems but an inch or two in length. On open downland it may often be met with, not on the slopes or summits, but in the depressions, the greater dampness of these being favourable to its development, and we have often, in such localities, seen large surfaces of ground of which it has taken almost exclusive possession.

The plant ordinarily commences flowering about the middle of May, and continues in blossom throughout the summer, and a few laggard flowers may even be met with so late as October. May, June, and July may, however, be taken as the time when the plant is in its best state, and producing most lavishly its striking and conspicuous golden flowers.

No medicinal or commercial value is now attached to the plant, though naturally in the Middle Ages, when almost everything had its healing powers firmly believed in, the silverweed was laid under contribution, and like almost all our wild plants, was employed to relieve a number of ailments—sciatica, ague, inflammation, for example—of the most varied nature, but all at least agreeing in acknowledging the potency of the little silverweed, as the one remedy for them all.



APPLE

THE APPLE.

Pyrus Malus. Nat. Ord., Rosaceæ.

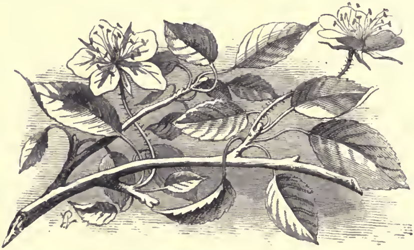
WHEN covered with a mass of pink-and-white blossom in the month of May, the apple-tree forms a really beautiful sight. It is, perhaps, hardly so commonly met with as some of the preceding plants, but is not unfrequently found in woods and hedges. Botanically it is the *Pyrus Malus.* The flowers, it will be noticed, grow in umbels, or little bunches, at intervals on the branches, and are succeeded by small austere fruit, commonly called crabs or crab-apples. Unpromising as they appear when tasted in this wild state, they are yet the originals of the numerous kinds of apple under cultivation. The generic name is derived from the Latin *pirum,* a pear, the specific from the Latin *malum,* an apple, a word, however, used by the Romans to denote several other fruits of a like character, such as quinces, pomegranates, pears, and citrons; thus Virgil speaks of "aurea mala"—*i.e.*, quinces; while in Horace we find, "ab ovo usque ad mala," the word in this case referring to the various fruits forming the dessert that, as with ourselves, marked the end of the repast. We see very much the same application of a general term to a particular and limited use in the French word, *pomme*, for the apple, the Romans applying the term *pomum* to any fruit growing on a tree, and by no means confining the word to the apple exclusively. Our English word is derived from the Anglo-Saxon *æpl*, the name under which the fruit was even in the long by-gone days appreciated and cultivated. Gerarde, in his work on plants, published in the year 1596, speaks of a valuable ointment that had been lately introduced, which was called pomatum. It was used to beautify the skin, and was compounded of the pulp of apples, lard, and rose-water. From the fruit of the crab verjuice is made, which, when fermented and sweetened, makes a not unpleasant drink; it is also in its natural state sometimes added to cider to give it greater roughness and tartness. The fruit, though so intensely sour to the taste, is, when ripe, very attractive to the eye, the rosy clusters being very tempting-looking, and not at all indicative of the disappointment in store for the novice, who, presuming on their attractiveness, desires a yet closer acquaintance. The fruit has, in fact, contributed a word to the language, crabbedness being a very sufficiently expressive word when applied to a disposition the reverse of sweet. The wood of the apple is very hard—a crab-tree cudgel is proverbially a tough one—and is very frequently used in turnery; and the trunk of the wild apple is preferred for this purpose to that of the cultivated trees. The great use, however, of the cultivated varieties, beyond the employment of the fruit for cooking and eating purposes, is in the making of cider. The mistletoe is more partial to the apple than to any other tree, and grows as freely upon the crab-apple as on the various kinds of apple in cultivation. While an interesting plant in itself, its parasitic growth renders it ultimately very injurious to the tree which supports it, though as it often appears to thrive best on trees that are already past their prime, it may be a question whether it may not in time become a more valuable product of the tree than the natural fruit, as many tons of it are found well worth the sending every winter from the great orchards of the western counties to the metropolis and other large towns.

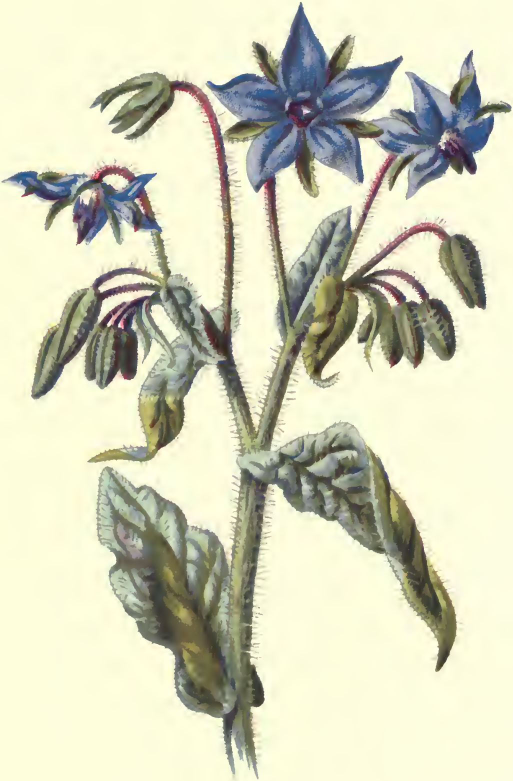
It is a curious and noticeable fact that the wild apple, like the wild plum, has its branches armed with thorns, and that in both cases these uncomfortable and aggressive features are lost under the softening influence of cultivation.

Probably we owe many of our cultivated species of apples, as we owe many other valuable things, to the Romans. Pliny speaks of the cultivation of twenty-two different varieties, and no doubt the Norman conquest was also the means of other varieties being introduced, for our readers must not conclude too hastily that since all our cultivated varieties have sprung from the wild crab-apple, that they have of necessity been the result of English skill alone. The crab-apple is no less a native of most of the other countries of Europe than it is with us, and the cultivation of the fruit has engaged the attention and rewarded the skill of many beyond the limits of our island home.

Tusser, writing in 1573, mentions in his catalogue "apples of all sorts;" while Parkinson, in 1629, is more explicit, and enumerates fifty-seven. Evelyn, in the preface to his "Pomona," written some thirty years or so after Parkinson's book, says, "It was through the plain industry of one Harris, a fruiterer to Henry VIII., that the fields and environs of about thirty towns in Kent only were planted with fruit from Flanders to the universal benefit and general improvement of the county." Hartlib, writing in 1650, speaks of "one who had two hundred sorts of apples." In more recent catalogues about three hundred kinds are ordinarily specified, but such lists are always fluctuating, as old kinds grow out of favour, and are superseded by others, which, if better, retain their ground, or if they do not justify their early promise are erased from the list. The crab-apple furnishes, from its vigour and hardiness, a very useful stock on which to graft.

The wild pear, *Pyrus communis*, and the service tree, *P. torminalis*, are other indigenous species of the genus. The blossoms are in each case pure white, and may be found at the same time as those of the apple. The pear tree is about equally common with the crab, while the service tree is somewhat more local in its range.

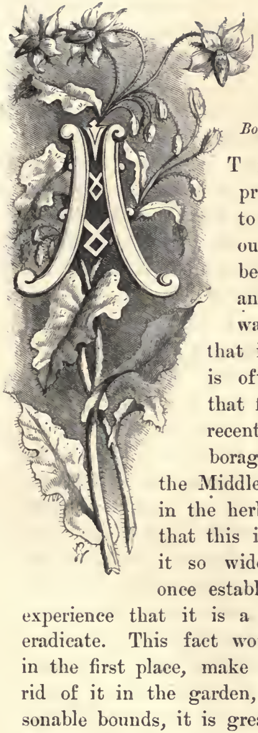




BORAGE

THE BORAGE.

Borago officinalis. Nat. Ord., Boraginaceæ.

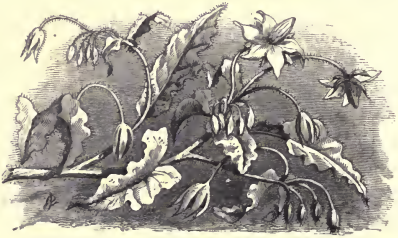


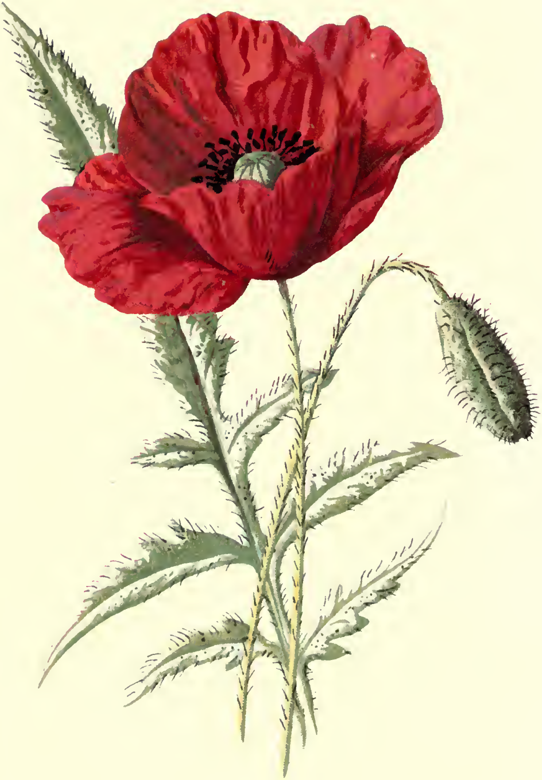
AT first sight the subject of our present illustration scarcely seems to have full claim to rank amongst our indigenous plants, but it has been so long cultivated in gardens, and is so frequently met with on waste ground and rubbish-heaps, that it is thoroughly naturalised, and is often found under circumstances that forbid us to believe that it is a recent escape from cultivation. The borage was held in high repute in the Middle Ages, and was largely grown in the herb-garden; and it is very possible that this is the cause that we now find it so widely distributed, as when it is once established in a garden, we know by experience that it is a very difficult plant to entirely eradicate. This fact would act in two ways: it would, in the first place, make it sometimes necessary to get rid of it in the garden, as, instead of keeping in reasonable bounds, it is greatly given to encroach on land wanted for other purposes; and, secondly, this strong vitality would enable it to survive when flung out on the rubbish-heap, and there to spring up anew in a position where it would probably not be disturbed again. It flowers during June and July, and, when well out in blossom, is a very attractive plant, the pure blue stellate blossoms telling with great effect in the midst of the rather dull-looking foliage.

The borage is the *Borago officinalis,* the only species of the genus that is found in Britain. According to some authorities the generic name is derived from the two Latin words—*cor,* the heart, and *ago,* I bring, and thence corrupted into *borago,* there being an old belief in its power of imparting courage to those who had sufficient faith in its efficacy to administer it to themselves. The old adage, "I, borage, give courage," is an indication of this faith in its virtue. As this derivation has not, however, proved altogether satisfactory, another has been started in a new direction—it may be considered an old friend in a new guise. It is suggested that *borrach,* a Celtic word meaning a man of courage may be the true solution. In many of the older works on plants the word has the "r" doubled, and this at once suggests that possibly the derivation may be of quite different character; and as we find that this plant, whose true home is in the countries fringing the Mediterranean, bears very similar names in those countries to that borne by it in our own, except that with them the "r" is always doubled, we begin to feel that possibly our name is but a corruption of these, and that any attempt to build up a theory on a mutilated word is likely to end in a failure. The plant is, in Spain, the *borraja;* in Italy, *borraggine;* in France, the *bourrache;* in Germany, the *borretsch.* On turning now to those languages for some key, we find that in the Italian tongue *borra,* in the French *bourra,* signify short hair or wool, both words probably being derived from the low Latin *burra,* a flock of wool. As the plant is in an especial degree thickly clothed with short hairs, so thickly, indeed, as to give it almost a downy, or at other times a frosted look when the light catches on their silvery tint, this last explanation of the meaning of the word is, without doubt, the correct one.

The plant is rather spreading in growth, and rarely attains to more than a foot or so in height. The leaves are somewhat lanceolate in form, and very rough in texture. The flowers are large, and of a brilliant blue, a feature that tends to render them additionally attractive, as we have very few plants that are purely blue. Crimson flowers are common, yellow flowers are especially abundant, but the azure blue of heaven is suggested by but few of our blossoms. The corolla is composed of five sharply-pointed members, and when fully expanded is quite flat; all the parts are in one plane, as in the pimpernel and some few other flowers. The stamens are very dark purple, so dark as to appear almost black, and form a very prominent and projecting conical mass in the centre of the flower. There is a curious ring of slightly-projecting scales at their base. The calyx, like all the rest of the plant, with the exception of the corolla, is thickly clothed with hairs, and is deeply cut into five long and narrow segments. The flowers grow on a long curving stem, the buds drooping, but the expanded blossoms often growing so that instead of the general plane of the flower being, as it is in most plants, more or less parallel to the ground, it is perpendicular to it. A comparison in the reader's mind between the way in which a daisy flower and a pansy flower grow will, we think, suffice to explain what we mean.

It would appear that much of the value attached to the borage in the Middle Ages had but little foundation in fact. The only use to which it is now put is to give a pleasant flavour and coolness to some few beverages; the more potent influences ascribed to it by the old herbalists seem to be now lost. Gerarde recommends its use in salads, "to make the mind glad." Parkinson, another great writer on herbs, again commends it "to expel pensiveness and melanchollie." Bacon says that it "hath an excellent spirit to repress the fuliginous vapour of dusky melancholie;" while Culpeper, in his medical treatise, finds the plant ample employment, putrid and pestilential fever, the venom of serpents, jaundice, consumption, sore throat, and rheumatism being only a few of the ailments for which it is prescribed.





COMMON POPPY.

THE SCARLET POPPY.

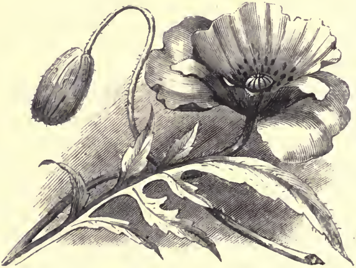
Papaver Rhœas. Nat. Ord., Papaveraceæ.

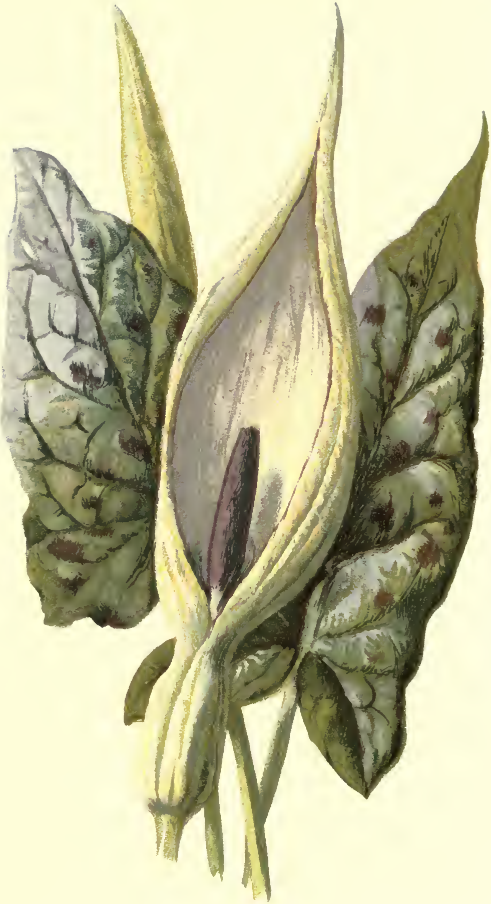
EVERY one of our readers has doubtless had his attention attracted by this plant, the brilliancy of its colouring and the profusion with which it grows being features that enforce notice even from the most superficial observers. It is the most intensely brilliant of all our wild plants, for though the marsh marigold flower, for instance, is a perfectly pure and brilliant yellow; the white campion, a white of spotless purity; and the borage as deep and unsullied a blue as could possibly be met with or imagined—these colours, beautiful as they are, must yield in brilliant strength and intensity to the scarlet of the poppy. It has been often asserted that in the midst of the immense variety of colouring met with amongst our British plants we have only two that bear scarlet flowers—the poppy and the pimpernel—but we should certainly ourselves be inclined to still further reduce this very limited number, and give the poppy proud pre-eminence, as there is a paleness, a refined delicacy of tint, in the red of the pimpernel blossom that will certainly not permit it to cope with the splendid depth of the scarlet of the poppy petals, though it has a beauty of its own that need fear nothing in the ordeal of comparison.

The species figured in the plate is the *Papaver Rhœas*. It will ordinarily be found fully in flower by the beginning of June; during that month and the next it will be met with in abundance, and isolated specimens may be found pretty freely all through the summer and autumn. It is more especially a plant of the corn-fields, and with the brilliant yellow of the corn-marigold, and the deep blue of the corn-bluebottle, or corn-flower, as it is often more emphatically called, makes a grand show of colour, though one, we can readily imagine, that charms the artistic and botanical taste rather than the agricultural interest. It seems more especially a plant of cultivation, for though it may often be met with on waste ground, rubbish heaps, railway banks, and suchlike spots, it is only found in profusion on the fields of the farmer amidst his corn and peas. It is an annual, and therefore one would imagine easily eradicated by a little timely patience, and more especially as its seeds do not, like those of the dandelion or thistle, get wafted all over the country side by every passing breeze, but the enormous number of seeds produced by each plant, and the ease with which they are shattered from the capsules when ripe, are formidable obstacles in the way of getting rid of it, for if the plants are not immediately destroyed at the first appearance of a blossom, any after-attack on them is almost useless.

The poppy grows some two feet or so in height, the stems are firm and erect, covered with stiff, bristle-like hairs, and a good deal branched. The lower leaves are of considerable size, very graceful in form and curve, and borne on long stalks; the upper leaves are sessile, *i.e.*, springing direct from the main stems, stalkless. The flowers are rich scarlet, each petal at its base having ordinarily a darker purple spot or blotch that is only visible when the position of the flower is such that the eye looks directly into it. The flower has four petals, but, unlike most plants, appears to have no calyx, a feature that proves rather puzzling to the novice. If, however, the opening bud be noticed, the green calyx is evident enough; the sepals fall away as the flower expands and their protective agency is no longer required. The stamens are very numerous, and form a large dark ring round the stigma, the central organ. The stigma crowning the globose mass of the style is beautifully rayed in form, and forms the very conspicuous wheel-like object in the centre of the flower. The capsule or fruit which succeeds the blossom is globular in form, and still preserves at its summit the stigmatic rays. The numerous seeds within the capsule escape, when it is shaken at all strongly, by the ring of small openings beneath the stigma.

Attempts have been made to utilise the brilliant red of the petals as a dye, but the colour, as is so often the case in vegetable products, has proved too fugitive to be of any value. In medicine, however, the petals have long been employed to give a colouring matter. The syrup produced is very slightly narcotic in effect; its real service is to render agreeable to the eye any potion that would otherwise awaken a prejudice against it on the score of appearances; and as taste and smell are often quite sufficiently objectionable, especially to children, the addition of a few drops of *Syrupus Rhœados* to the prescription may be considered not merely legitimate, but a real kindness. It was in the Middle Ages supposed to be a remedy for pleurisy, ague, and many other ailments. As some of our readers may possibly recall to their memories the fact that the opium of the medicine-chest is prepared from poppies, we may, in conclusion, say that the drug is not afforded by the present species. The opium poppy is the native of a sunnier clime, though it is from time to time found in a state of cultivation in our English gardens. The narcotic principle is found more or less in all the species of poppy, the plants are therefore at times introduced both in art and literature with a certain symbolism of meaning, from this property of shedding a drowsy somnolency on those who come beneath their influence.

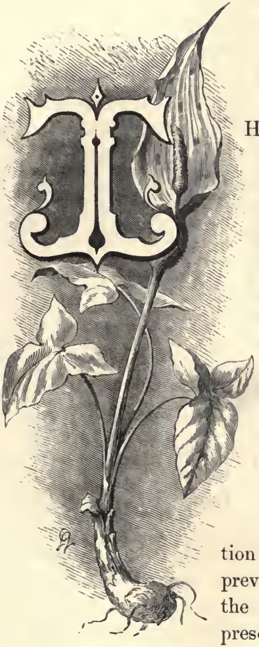




CUCKOO-PINT

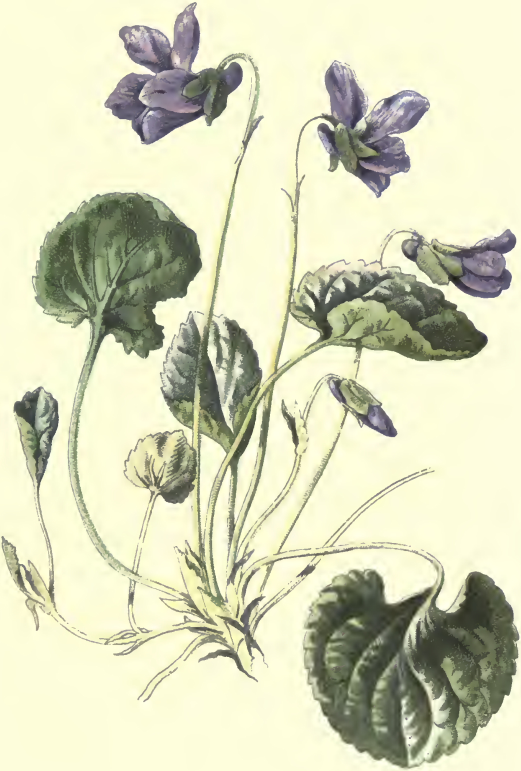
THE ARUM OR CUCKOO-PINT.

Arum maculatum. *Nat. Ord., Araceæ.*



THE subject of the present plate, though by no means so rich in colour as many of our wild plants, has a quaint attractiveness of its own; and though deficient in many of the charms of its more favoured fellows, is so distinct and different in form from most other plants that few would pass it by unheeded.

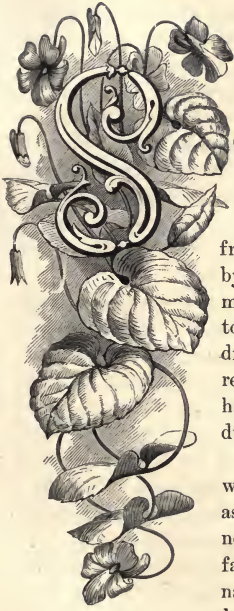
The large hood-like part of the bloom is botanically termed a spathe or spatha, from the Latin word *spatha,* a spatula or battledore, in evident allusion to the form. The necessary limitation of space has, in a few cases, prevented our doing full justice to the plants represented, and in the present case but a small specimen of the plant could be, on this account, figured. The spathe is often nine or ten inches long, tapering to a point at its upper extremity, opening out lower down so as to show the club-like form within, and then contracting again. The central form or spadix is very curious in construction and quaint in form, and will well repay attentive investigation. On stripping off the outer envelope it will be seen that the purple club-like form is but the termination of a very unusual form of inflorescence. At the base of this central succulent axis we find a ring of fertile pistilliferous flowers, and above these another ring, some two or three rows, of aborted or rudimentary organs of like nature. Surmounting these, after a brief intervening space, we find a group or cluster of well-developed stameniferous forms, and above these, as in the case of the female flowers, another ring or cluster composed of stamens in a rudimentary and imperfect state. Though the various parts are arranged normally in the manner that we have just pointed out, the barren and fertile rings may at times be found intermingled to some extent, and if some twenty or so of these plants be examined during their period of inflorescence several departures, more or less marked, from the typical arrangement will be encountered. Our illustration represents the appearance of the plant as its leaves and flowers nestle amongst the thick undergrowth of the copse or hedgerow in the earlier part of the year. It will ordinarily be found in blossom by about the middle of April, and may be met with until almost the end of May. The autumnal aspect of the plant is very different. We look in vain for any signs of blossom, in vain even for its foliage; these have all withered and passed away, and in their place we see a little green stem, some three or four inches high, surmounted by a cluster of large succulent-looking berries of a brilliant scarlet colour, a dozen or more of them, each as large as a ripe black currant, and forming a far more conspicuous object in the midst of the fast thinning hedgerow than the blossoms afforded months beforehand, when everything was bursting into verdure and life. The leaves are on long footstalks that spring directly from the root: they form an excellent illustration of what is in botanical nomenclature called the sagittate form of leaf, a term derived from the resemblance of the form to that of the head of an arrow. The form may be seen again in the sorrel and several other plants, but the most striking and typical example is that afforded by the foliage of the plant that is on this account called the arrowhead. The foliage of the arum is often irregularly blotched with spots of various sizes and of a dull purple, or more rarely yellowish-white, the general ground colour of the leaves being a dark green. In some plants the purple blotches are of so deep a shade as to be almost black, while in others these markings are altogether absent. The blotched foliage is, however, at once more striking and more characteristic. The scientific name of the plant is the *Arum maculatum,* the specific name being derived from the Latin word for spotted. The generic name is derived from the Greek equivalent, a word that itself was in turn derived from *ar* or *aur,* signifying fire in ancient Hebrew and Egyptian, and refers to the fiery or acrid taste of the plants comprising the genus—a genus which in England contains only the species under consideration. The rootstock or rhizome contains a large quantity of farinaceous matter, in its raw state exceedingly burning and acrid, but when properly prepared and dried by the application of heat, harmless and nutritious—an excellent substitute for cornflour. The powder thus obtained was at one time an article of sale under the name of Portland sago: it entered largely into the manufacture of hair-powder. It was also employed as a starch in the preparation of the elaborate ruffles affected by our ancestors—hence the plant is in some old books called starchwort. The cuckoo-pint was formerly largely employed as a remedial agent, but this use or misuse is now altogether a thing of the past, its effect being much too violent and uncertain to render its administration at all advisable. A drachm weight of the plant, either in its green state or dried, was at one time held to be a specific for the plague, and its leaves were applied externally to wounds, a proceeding we should imagine of great danger, and a pointed illustration of the remark one hears from time to time of the remedy in some given case being worse than the disease. Another favourite mediæval prescription equally dangerous was the use of the water in which arum roots had been boiled as an application to the eyes when the sight is dim, or when, as one old writer delicately puts it, "by some chance they become black and blue."



SWEET VIOLET.

THE SWEET VIOLET.

Viola odorata. Nat. Ord., Violaceæ.



SCARCELY any wild flower is so well known or such a general favourite as the sweet violet, the *Viola odorata* of the botanist. Its fragrance betrays it to the rambler by the country hedge-side, and has made it no less attractive to the townsman, for whose benefit hundreds of thousands of its flowers are regularly cultivated, the sale of which has become a recognised street industry.

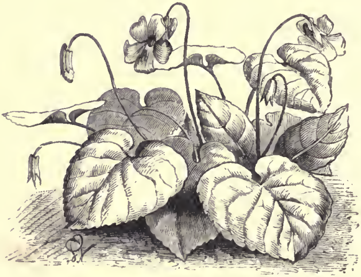
The generic title has been by some writers assigned a Celtic origin, but as the plant is in Latin *Viola*, we need hardly, perhaps, look much farther afield for a derivation. The name was first bestowed on the genus by the great Linnæus, and as by far the greater number of the names he assigned to various plants are either Latin or Greek in their origin, we may reasonably assume that in the present case he more probably went to a classic than a Celtic source. *Odorata*, the specific name, also Latin, we need scarcely point out, means odorous. Many plant-names thus owe their origin to some peculiarity that it is desired to emphasise in the mind when naming the plant, not only the fragrance of the blossom, but also its colour or that of the fruit, the texture of the leaf, the general growth, and many other structural features being introduced; of these the upright St. John's wort, shrubby cinquefoil, red-berried bryony, rough-fruited bedstraw, alternate-leaved saxifrage, tuberous carraway, perfoliate honeysuckle, and curled dock are a few examples out of many. The same influence has largely affected the scientific names, thus we meet with *pedunculata,* stalked; *acre,* bitter; *mollis,* soft; *acutus,* sharply pointed, and a great variety of other titles of the same character.

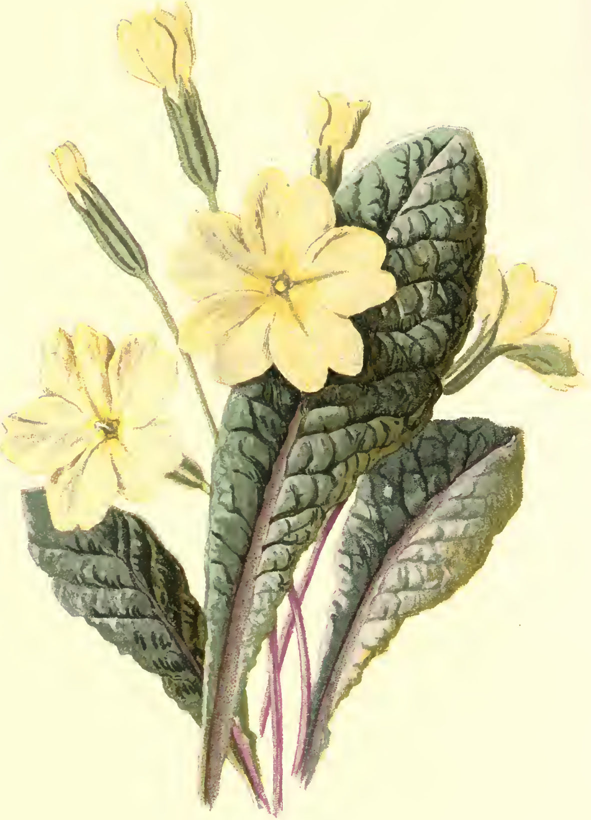
The sweet violet has a perennial root-stock, and from this runners are generally freely given off; it is not, therefore, a difficult plant to cultivate, though care must be taken to approximate the conditions of growth to those that are natural to the plant. In a state of nature it will always be found to be a lover of the shade, growing either amidst the long grass and herbage of the hedge-bank, and shielded by them, or in woods or other spots where some little shelter is obtainable, and it would on this account escape the cursory glance, its fragrant odour, however, often revealing its whereabouts. The leaves are given off at intervals along the creeping stems, and form a good example of what is botanically termed a cordate, or heart-shaped leaf. The leaves are often considerably larger than the space at our disposal will allow us to represent in our illustration. The flowers are generally of a deep purple colour, though sometimes they are of a pale reddish purple, and often pure white; all, irrespective of colour, are equally fragrant. The deep purple flowers give their name to the colour, violet, that is called after them, in the same way that people speak of pea-green or canary, terms equally suggested by the tints of natural objects. The violet flowers in the early spring, about the third week of February being the earliest date at which it will be met with, while by the end of April the time of blossoming will have expired. Our dates refer exclusively to the plant in a wild state; if dealing with the plant under the influence of cultivation these dates would require considerable modification. The flowers, it will be noticed in our illustration, are spurred. The sepals, the parts composing the calyx, are very obtuse in form.

The hairy violet (*V. hirta*) bears a very considerable resemblance to the species we have illustrated. The main points of difference are as follows:—In the hairy violet the flowers are almost or quite scentless; it but rarely throws out the trailing shoots that are so characteristic a feature in the sweet violet; the hairs on the stem are in the sweet violet deflexed, while in the hairy violet they are spreading, and are thus more conspicuous, sufficiently so to give the familiar name to the plant; and, in conclusion, the little scales called bracts, that in our drawing are seen on the flower-stems, are in the sweet violet ordinarily above the middle of the stalk, while in the hairy violet they are ordinarily (in neither case invariably) below this point.

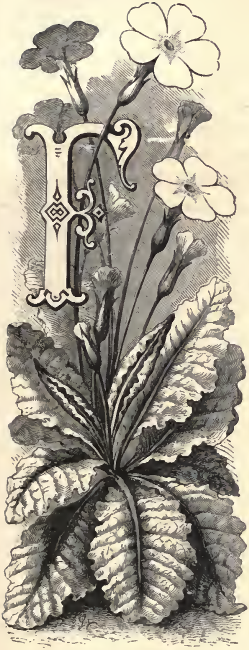
The marsh violet (*V. palustris*), the dog violet (*V. canina*), and the heartsease or pansy (*V. tricolor*) are other well-defined species of indigenous violets. The sweet violet is one of the favourite flowers of the poets, and many pleasing passages might easily be collected did space permit.

The *V. odorata* is still found in the pharmacopœia, though many of the virtues ascribed to it in the Middle Ages have not stood the test of time and greater experience. The expressed juice and the syrup are slightly laxative, and are often prescribed for young children. The flowers may also be used as a test, since they turn red with acids, while alkalis change them into green. The roots appear to possess somewhat violent and uncertain medicinal qualities; they have occasionally been used as adulterants of more costly drugs. A mere catalogue of the uses of the violet in the Middle Ages, and of the diseases it was a remedy for, would take up far more room than the subject is worth—inflammation of the eyes, sleeplessness, quinsy, pleurisy, jaundice, are but a few of the ailments for which it was held potent.





PRIMROSE



THE PRIMROSE.

Primula vulgaris. *Nat. Ord., Primulaceæ.*

FEW, if any, of our wild plants are more generally known, or more widely appreciated, than the beautiful flower figured on the present plate. The graceful form of the widely-expanded blossoms, the delicacy of their colour and fragrance, their profusion, and the time of the year at which they are found, are all features that tend to endear them to all lovers of plants. The colour is a very unusual one; the only blossom that we can call to remembrance as we write that at all closely resembles it is one of the beautiful plants of the rivers of tropical America, the *Lymnocharis Humboldtii,* which, though very different in form, has the same delicate sulphur tint over the greater part of each petal, and the same rich spot of deep, clear yellow at its base, that we see and admire in the primrose. The *L. Humboldtii* appears to be a by no means troublesome plant to cultivate, and our readers will find no difficulty in meeting with it at Kew or Sydenham. It is very curious that this same combination of colour may also be found in a very common but very beautiful butterfly that, like the primrose, hails the warm days of spring. The lover of natural beauty will scarcely have failed to notice and appreciate this insect, the *Gonepteryx rhamni*, or brimstone butterfly, of the entomologist, its size, the graceful curves of the outlines of the wings, and its appearance at so early a period, all rendering it a conspicuous addition to the beauties of the wakening year. The entire surface of the wings when displayed reveals the same delicate sulphur-yellow of the primrose, except that in the centre of each wing we find a spot of deeper yellow. As possibly some entomological novice may capture an insect that, while appearing to be the one in question, by no means bears out the enconiums we have pronounced on the beauty of its colouring, we may just mention that it is the male insect that has the ground colour of the wings pure sulphur in tint; in the female the wings are of a dull greenish white.

The outer edge of each of the wings, both in the male and female, has a conspicuous projecting point or angle, a feature that no other British insect possesses to anything like the same extent, a feature, therefore, that will at once identify it—a feature, too, that gives it its first or generic name. *Gonepteryx* signifies angle-winged, while the specific name points out that the larva, or caterpillar, of this beautiful insect feeds on the *rhamnus*, or buckthorn.

The primrose is the *Primula vulgaris* of botanical nomenclature. The generic name is derived from the Lat. *primus*, first, in reference to the early appearance of this, the commonest, species in the genus, while this frequency of occurrence is itself in turn dwelt on in the specific name *vulgaris*. The English name primrose conveys a reference again to the earliness of its appearance; it is in France the *primevere*. The flower is a great favourite of the poets—Shakespeare, Milton, Cowper, Burns, Goldsmith, Beaumont and Fletcher, all speak of it.

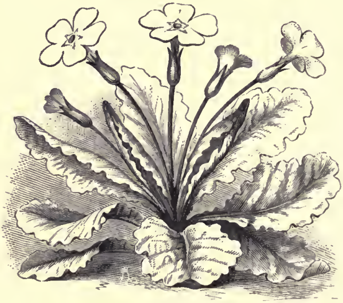
When found at all the primrose will ordinarily be met with in profusion: woods, hedgebanks, railway embankments, and pastures are its favourite spots; and there are few more beautiful or characteristically rural sights than a long stretching hedgerow or coppice starred over with thousands of these delicate blossoms. April and May are the best months to go in quest of it, though in sheltered situations it may in mild winters be found in blossom even during the opening days of the year.

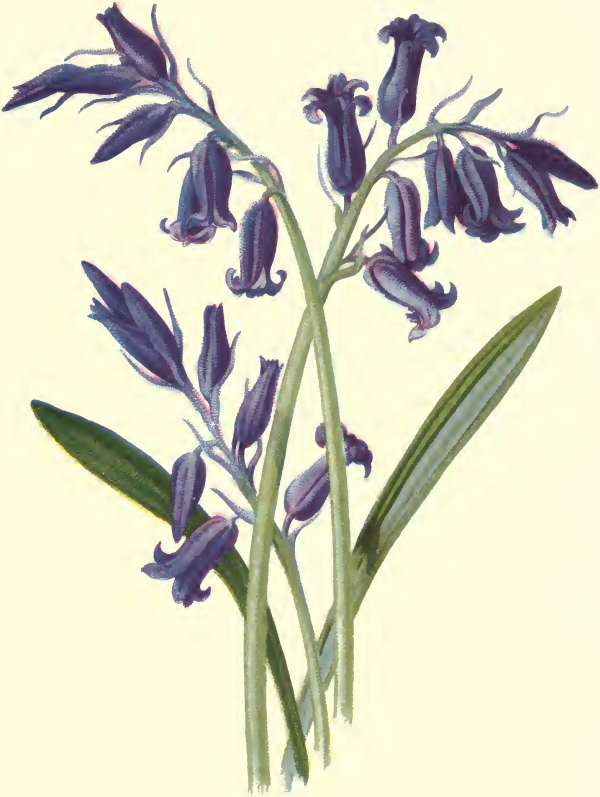
The plant must be so well known to all our readers that little verbal description of it appears necessary. Great numbers of the roots are transported each spring into London and other large towns, and in many a back street and squalid alley the pot of primroses is a link between the present and the past, and recalls many an association anent the bygone days to those whose lot now confines them to very different surroundings.

In some parts of the country, more especially in South Wales, a variety having pink blossoms is common, but never so common in any locality as to supplant the better-known colour, and though in some localities hundreds of plants of the pink variety may be met with, the typical species will always be found to be still more abundant.

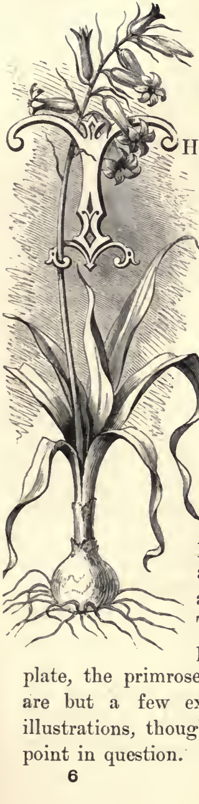
The roots of the primrose are emetic in medicinal effect. Though, like many other indigenous species, the present plant has fallen into disuse, it was largely used in many ways at one time. We have seen it stated that the leaves of the primrose are eagerly eaten by the common silkworm, but we have not submitted the matter to actual test. Should such be the case the fact would have a certain value, as the leaves of the primrose would at some times and in some localities be much more easily accessible than those of the mulberry, the food ordinarily sought after.

The cowslip is an allied species, but as that forms the subject of another plate in our series, we refer our readers to that for remarks that naturally arise in mentioning the other familiar plants of the same genus, such as the cowslip, the oxlip, and the bird's-eye primrose.





HYACINTH



THE HYACINTH.

Agraphis nutans. Nat. Ord., Liliaceæ.

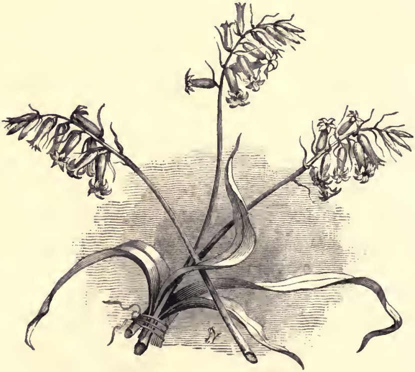
THE present plant, though as characteristic a spring flower as the snowdrop, the primrose, or any other of the well-known and welcome harbingers of the coming floral year, differs widely from them in one respect, that, if not of botanical significance, is sufficiently marked to be very noticeable by any careful observer—we refer to its colour. Various theories, more or less satisfactory, have been raised to account for the fact, though into these we cannot here go, that almost all our spring flowers are, as compared with the flowers of summer and autumn, very pale in colour, white and yellow being the prevailing tints. The stitchwort, the arum or cuckoo-pint, a plant figured on a preceding plate, the primrose, the hawthorn, and the lady's-smock are but a few examples that will be noticed in our illustrations, though sufficient possibly to bring out the point in question. The flowers of the summer incline to richer tints—the rich scarlet of the poppy, the deep blue of the borage, or the purple of the meadow cranesbill being fairly typical examples. As these three species have already appeared in our work, the reader may readily turn to them in confirmation of our statement. We need scarcely, however, stay to point out that, as in most other cases, there are marked exceptions to any such generalisation, the deep purple of the present plant, the very similar hue of the periwinkle, or the pure deep blue of the germander speedwell being a wide departure from the prevalent lightness of colour in spring blossoms; and we might in the same way point out several flowers of the summer and autumn that are to the full as light and delicate as their sisters of the spring. Many such will be found scattered amongst our illustrations, so that it hardly seems worth while to linger in particularising them more distinctly.

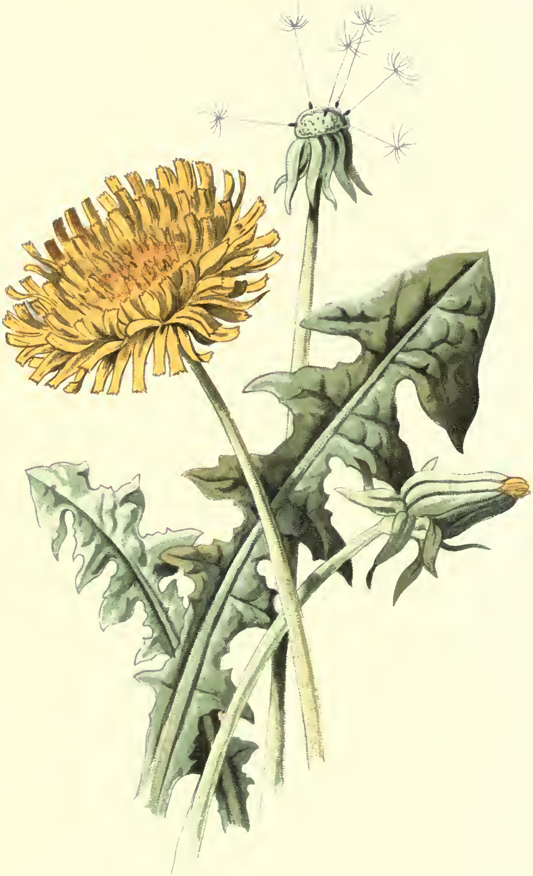
All blue or purple flowers are liable to change of colour, sometimes being found of a pure white, at others a reddish tint—the milkwort, the sweet violet, the bugle, and the present plant afford easily accessible examples of this, while the germander speedwell only varies to white, never to any shade of red. No flower normally blue ever changes to any tint of yellow.

The wild hyacinth is sometimes called the blue-bell. It is a somewhat unfortunate name, however, as the harebell is also occasionally known as the blue-bell, and there are several other blue and more or less bell-like flowers, as, for example, the gentians. The present plant is known botanically as the *Agraphis nutans*, though by the older writers it was called the *Hyacinthus non-scriptus*, and in some modern works it is the *Scilla nutans* or the

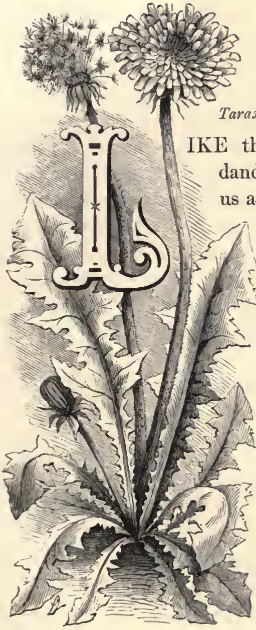
Endymion nutans. The specific name *nutans* simply means nodding; but it will be seen that very considerable difficulty has been felt in determining the genus, various writers, according as they dwelt on one or other point of structure, classifying it differently. Linnæus first called it *Hyacinthus,* and the specific name means not written on, a name inexplicable without some key. The genus was named—after a certain classical bias of those days—after the youth Hyacinthus, who, being killed by Apollo, was by him changed into an allied plant, whose leaves bore in dark streaks the letters of his name; and as this particular species of the genus has no markings on its foliage, it was, for the sake of distinction, called the *non-scriptus,* or unwritten on. The generic name *agraphis* is of similar significance, being compounded of two Greek words, meaning not to mark. *Scilla* is derived from the Greek word to injure, but we confess we are unable to see any especial appropriateness, etymologically or botanically, in calling our plant either *Scilla* or *Endymion.* It is the "fair-hair'd hyacinth" of Ben Jonson, a name bearing allusion to the myth already referred to. The hyacinth has very long leaves, of a type known botanically as linear; these all rise from the bulb, and from the midst of these and over-topping them rises the stem that bears the flowers. These blossoms are arranged in a long and curving line, and vary considerably in number in various specimens; each has two small bracts at the base of the pedicel, or short stem that unites it with the main stem. The flower is a perianth, a term applied when the parts of the calyx and the corolla are so similar in form and colour that little or no difference is perceptible.

The hyacinth is a plant of the woods and shady hedgerows, and when found at all is found in such abundance ordinarily as to appear like a carpeting of blue beneath the trees, which, softening off into a beautiful purple in the distance, as it does, until all detail is lost, and nothing remains but a hazy mass of rich colour, has a peculiarly charming effect, and one that once seen and enjoyed will not readily be forgotten. The rich odour will often reveal their proximity before the woodland dell they delight in is reached. The hyacinth is in flower from about the first week of April until the first week of June, and being a perennial may be looked for in its favourite localities year after year.





DANDELION.



THE DANDELION.

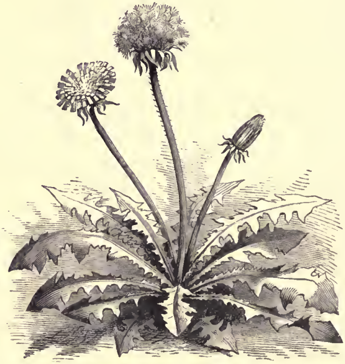
Taraxacum dens-leonis. Nat. Ord., Compositæ.

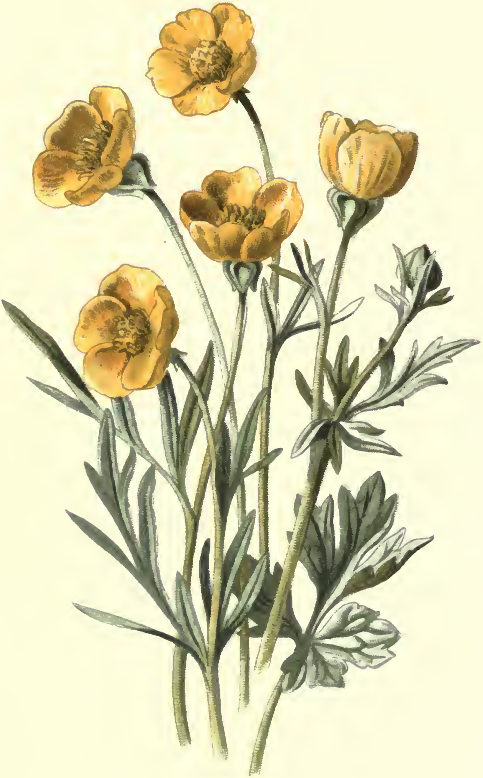
LIKE the buttercup or the daisy, the dandelion has been so well known to us all since the earliest childhood that we feel almost induced to follow on the track that is so temptingly laid down by the writer of an old botanical book in our possession wherein he says, "it is vain to describe an herb so well known." This style of treatment is a somewhat favourite one with our old author. Under the heading dock, we find that "many kinds of these are so well known that I shall not trouble you with a description of them. My book grows big too fast;" while of the woodbine he says, "It is a plant so common that every one who hath eyes knows it, and he that hath none cannot read a description if I should write it." Tempting as this mode of treatment may appear when writing on our common wild plants, we must nevertheless endeavour to see if we cannot, without too evident a reiteration of well-worn facts, throw a little more light than this on various points connected with the subjects of our plates as they pass before us.

The dandelion is by some botanical writers called the *Leontodon taraxacum*, by others the *Taraxacum dens-leonis*. The allusion to the lion's tooth is very palpable in all these names, dandelion being but a corruption or modification of the French *dent-de-lion*, while *leontodon* means precisely the same thing in the Greek and *dens-leonis* in the Latin. Why the plant should thus be associated with the lion's tooth has been the subject of several theories. One writer suggests that the name arises from the whiteness of the root when cut, but this is hardly probable, as the popular names of plants more ordinarily arise from some feature in their growth, or some resemblance presented, that appeals more directly to the eye than a peculiarity which can only be noticed on the uprooting of the plant. The leaves or the flowers will more probably supply the clue to the origin of the name, and it is therefore not surprising to find that we have two other theories to account for the origin of the name dandelion—one being based on the form of the leaves of the plant, and the other on the shape of the blossoms. It will be noticed that each part or ray of the flower-head is long and strap-shaped, and that the end is notched or toothed, the feature that, according to some writers, has earned it its popular name, the golden colour being in this case regarded as a further proof of the correctness of the idea, since though the tooth of the real lion is white, his heraldic presentment may have golden teeth; even where thus represented, however, the feature is somewhat insignificant, and the surmise, in addition, clashes with one of the established rules of blazonry—that lions, whatever their tincture, except it be red, or they are charged on a field of that tincture, are armed and langued gules, but azure in the case of either of these exceptions, unless the contrary be specified in the blazon. The teeth of the lion of heraldry are, therefore, ordinarily red or blue in colour, not golden. The jagged form of the outline of the leaf furnishes a third explanation of the popular name, the pointed lobes being really very suggestive of the pointed form of the four more conspicuous teeth, two in either jaw, of the lion; and this surmise appears to meet, amongst botanical students and writers, with most general acceptance.

The leaves of the dandelion are subject to a very considerable variation of form, in some cases being deeply cut into segments, while in others the segments or lobes form a much less conspicuous feature. These lateral lobes, it will be noticed, ordinarily point downwards in their general direction, unlike such features in the majority of plants where they will be found to point towards the apex of the leaf. The simpler form of leaf above referred to is one of the characteristic features that has led many botanists to admit a sub-species—the marsh dandelion, or *T. palustre*.

The plant may be found in flower almost throughout the year, though its golden heads of blossom are more especially conspicuous in the earlier months of summer. It is a perennial, and the long, tapering root-stock penetrates so deeply that it is a difficult plant to dislodge, while each wind sends the seeds flying over the country side. In our illustration the greater number of the seeds have been thus scattered. Before the seeds are fully ripe and ready for dispersal the head is globular, and from its silky whiteness forms a noticeable feature. Each head of flowers and each leaf springs directly from the root. The plant is full of a bitter and milky juice, which, when it comes in contact with the hand, turns to a brown stain that is rather difficult of removal. The young leaves when blanched lose much of their bitterness, and are not altogether unlike endive in flavour, and two or three young leaves, even in the green state, form a pleasant addition to a salad. The roots are sometimes roasted, and employed as a substitute for coffee, though from their somewhat powerful medicinal qualities some little care is requisite in their use.

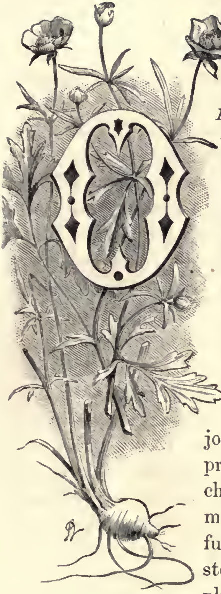




BULBOUS CROWFOOT

THE
BULBOUS CROWFOOT.

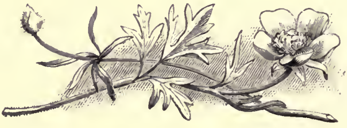
Ranunculus bulbōsus. Nat. Ord., Ranunculaceæ.

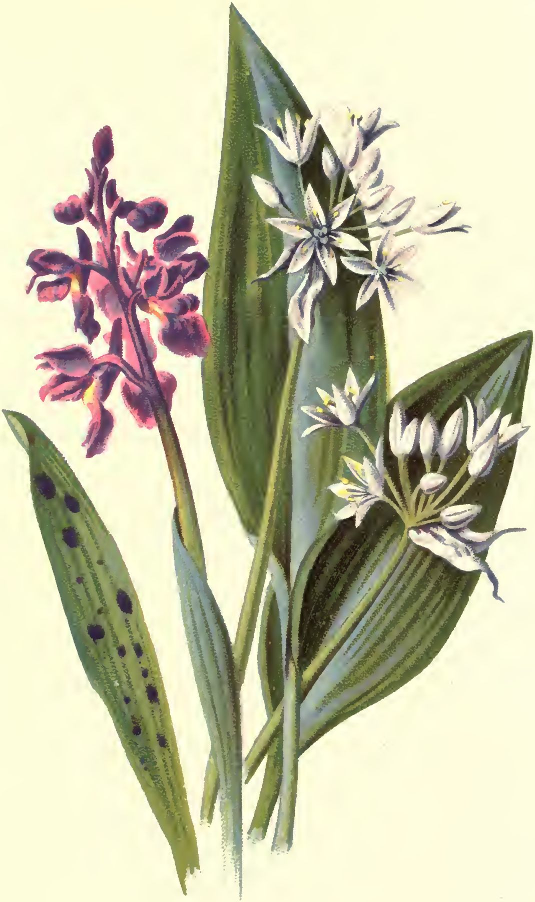


OUR present subject, the bulbous crowfoot, is one of the numerous family of buttercups, and may be considered as the most typical specimen, the buttercup *par excellence*, the flower that is linked with the daisy in the days of rural childhood, and that remains, to all those who have ever as children enjoyed the delight of rambling in the long grass of the meadows, a memorial of those early joys. The farmer, however, regards the profusion that is golden wealth to the child, the inexhaustible treasure that may be gathered by handful after handful and yet suffer no diminution of the store, with no friendly eyes, since the plant has not only no economic value, but is absolutely injurious, in so far as it takes the place of more useful herbage. Cattle and horses, it will be noticed by any one who will take the trouble to watch their proceedings, are careful to avoid the buttercups, their burning and acrid nature being evidently by no means to their taste. As the meadows in June are often one sheet of brilliant yellow from the abundance of these flowers, it is evident that a very considerable deterioration of the pasturage must for the time being ensue. The botanical name of the present species is *Ranunculus bulbosus.* The generic name applied to these plants is derived from the Latin word for a frog—*rana,* and refers to the favourite habitat of most of the species—damp low-lying meadows, water-courses, the edges of streams, or, in one case, the *R. aquatilis,* the actual mid-stream itself, localities where these plants flourish and frogs abound. The idea seems perhaps a little far-fetched, but it is altogether too late now to raise such objection, as the term has been employed since the time of Pliny, who seems to have first used it, and has consequently received the sanction of ages. The specific name *bulbosus* refers to the bulb-like swelling at the base of the stem ; it is, however, only bulb-like, it is not a true bulb.

In France the plant is the jaunet, a name that the brilliancy of the colour of the blossom, either taken individually or seen in the mass, renders very expressive. From the commonness of the plant almost everywhere (though in the North of Scotland it is unknown) it has received a great number of local names, of these perhaps frogs-foot and gold-cup are most expressive, frogs-foot having reference to the form of the leaves, while gold-cup is sufficiently expressive of the form and colour of the blossom. In botanical works this species is often called crow-foot, from a fancied resemblance to the foot of a bird in the form of the foliage. It is very curious to notice how largely these fancied resemblances have been suggestive in botanical nomenclature. As examples of the more obvious names we may instance the arrow-head, the name being derived from the form of the leaf, and so marked is this resemblance that the generic and specific names also enforce it, the Latin word for an arrow being *sagitta*, and the botanical name of the plant *Sagittaria sagittifolia;* the five fingers, as the cinquefoil, from its spreading leaflets, was at one time called; the adder's-tongue, ox-tongue, lamb's-tongue, pheasant's-eye, ox-eye, cat's-tail, horse-tail, colt's-foot, bird's-foot, goose-foot, lark's-spur, stork's-bill, mouse-ear, hare's-ear, shepherd's-purse, skull-cap, Turk's-cap, monk's-hood, maiden-hair, rattle, snow-flake, snapdragon, and many other examples might also be cited. Amongst specific names we may meet with the following: *serrata, dentifera, filiformis, lanceolatum, cordatus, peltatus, flabellifolia, apifera, ensifolia, reticulata*—saws, teeth, threads, lance-heads, hearts, shields, fans, bees, swords, and network being respectively called upon to furnish a comparison or bestow a name. In the same way we find amongst generic names such words as the following: *campanula*, signifying a little bell; *stellaria*, like a star; *lycopsis*, from two Greek words signifying wolf-face; *delphinium*, Lat. *delphinus*, a dolphin, on account of the shape of the upper petal of the flower; *lomaria*, from *loma*, a fringe. The bulbous crowfoot bears some slight resemblance to two of its congeners, the upright crowfoot and the creeping crowfoot, but the resemblance is only superficial, the botanical characters that mark the differences being really very distinct; a clear feature for popular use will be found in the sepals, the parts that form the green calyx that holds the cup of the flower. In the present species the sepals are so far reflexed that they almost or quite touch the stem that supports the blossom, while in the other two species this is not the case. This feature is only noticeable in the fully expanded flower. In our illustration it will be observed that the parts of the calyx wrap the bud round in the ordinary way, and it is only on the expansion of the blossom that the sepals are thrown back.

The buttercup may be considered one of the typical flowers of the early summer. It will ordinarily be found in flower by about the end of the first week in April, and lasting through May and June and the first half or so of July. It is a perennial, and therefore when once established not easily got rid of again. The cup form of the blossom that gives it one of its common names, buttercup, is in this species particularly clearly defined. In the goldilocks, for example, the water buttercup, or the celandine, allied plants, this regularity of form is by no means so clearly seen, though all three are popularly called buttercups. The stems of the bulbous crowfoot are furrowed slightly, while in several of the other species they are merely cylindrical. There is a great variety of form in the foliage: the upper leaves, it will be noticed, have a much greater simplicity of outline than the lower, the segments of which the leaves are composed being in one case very long and narrow, while in the other they are broadened out into very distinct masses. Most of the lower leaves are far larger and richer in outline than the limited space at our disposal allows us to depict.





ORCHIS

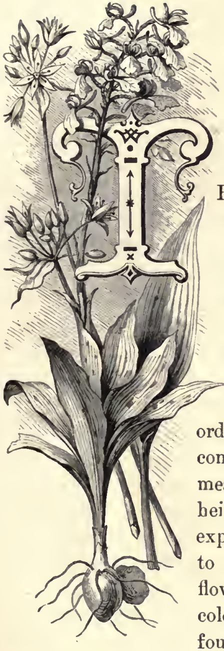
THE COMMON ORCHIS

(*Orchis mascula. Nat. Ord., Orchidaceæ*)

AND

BROAD-LEAVED GARLIC.

(*Allium ursinum. Nat. Ord., Liliaceæ*).

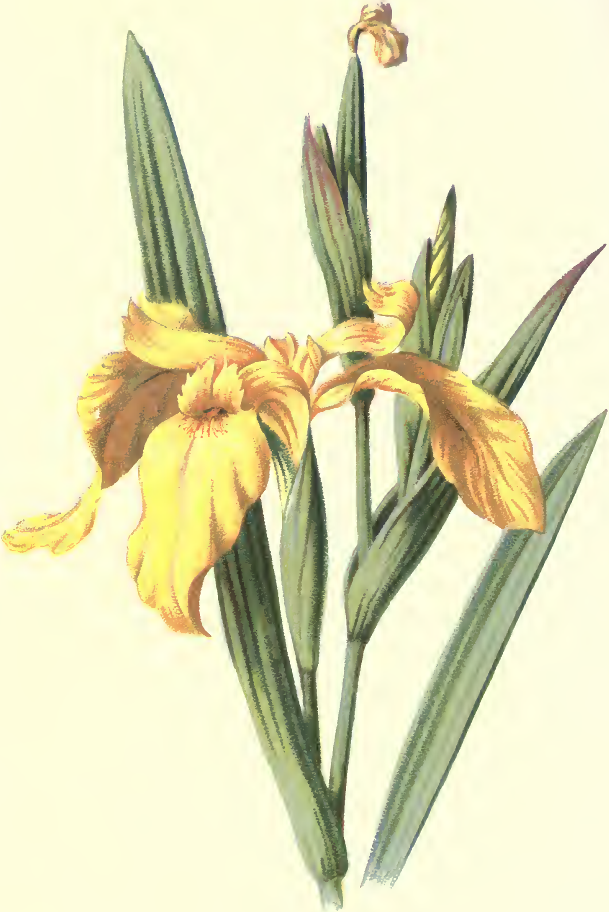


THE common or early purple orchis, one of the subjects figured on the present plate, may not uncommonly be met with in most parts of England in meadows, pasture-land, and the wide expanses of open down-land that in some districts form so marked a feature in the scenery, though, like many other members of the order, it seems to prefer some geological conditions of soil more than others. In meadow-land the plant often attains a height of a foot or more, while on the exposed and breezy downs it is rarely to be found above half as high. The flowers are ordinarily of a rich purple colour, though at times they may be found of almost every gradation between this normal state and pure white. The plant may be found in flower from about the middle of April to the middle of June, a single flower-stalk being thrown up from each plant. The leaves are of a lanceolate form, and rarely rise far from the ground, the general effect, therefore, of the foliage when one comes upon a plant during a ramble over the hills is that of a rosette of leaves surrounding the stem bearing the flowers. The leaves are ordinarily irregularly spotted and blotched with markings of a dark purple colour, a feature that renders the plant more conspicuous and attractive when out of flower than would otherwise be the case. The root-stock develops each year a fleshy tubercle for the supply of the nutriment needed for the next season's growth; hence, ordinarily, in digging up the plant two of these will be found. "These alter every year by course, when the one riseth and waxeth full, the other waxeth lank and perisheth: now it is that which is full which is to be used in medicines, the other being either of no use, or else, according to the humours of some, it destroys and disannuls the virtue of the other, quite undoing what that doth." These tuberous root-like bodies abound in a starchy matter, which is of great value, being extremely nutritious, and under the name of salep has been, at one time or another, largely employed as a strengthening agent. It forms a diet of especial value to convalescents and children, being boiled with milk or water, flavoured and prepared in the same way that sago or other farinaceous food would be. The finest salep is brought from Persia, though the present species, *O. mascula,* and its congeners, *O. morio* and *O. militaris,* all British plants, yield a quality, under careful preparation, that is almost equal to that of the East. Should any of our readers care to manufacture a little for the sake of the experiment, and to test its nutritious qualities, the following process is necessary:—The roots of the orchis must be dug up when the plant has done flowering and has formed its seed, the new or next year's tubercle being then at its full maturity. The new tubercles being separated from the old and decaying ones, must be cleansed and peeled, then laid on a tin plate and placed in an oven for some ten minutes, at about the ordinary temperature for bread-making. On removing them they will be found to have changed from their milky-white appearance to an almost transparent and horny state, though without suffering any diminution in bulk. They must then be removed into the fresh air to dry and harden, a process that will take some few days, and on its completion they are at once either ready for use or to be stored away for as long a time as circumstances may call for, as humidity or mould do not seem to affect them when once thoroughly prepared.

One curious feature in the orchis does not appear ever to have been satisfactorily explained—we refer to the great difference perceptible, sometimes only too painfully, in the scent of the blossoms. In some specimens the odour is scarcely noticeable, in others the flowers might fairly be called fragrant, while in some again the smell is both strong and offensive, and utterly banishes them from the place in the spring nosegay that their heads of brilliant blossoms might otherwise fully claim.

The various species of orchis which adorn our pastures will almost all repay the inspection that their curious and irregular looking flowers, so quaintly different from the ordinary idea of a flower, invite one to give them. One, the lizard orchis, the *Orchis hircina* of scientific nomenclature, has a blossom that presents much the appearance of the animal from which it takes its familiar name, while the dull greenish-white of its colour still further aids the resemblance. Another, the man-orchis, *Aceras anthropophora*, simulates the human form not inaptly, the lower portion of the flower having a body and two lateral pieces that do very well for arms, and a forked termination that does duty for the legs. The general effect of the head of flowers is very quaint, much like a series of little yellowish-green dolls. The bee orchis, the *Ophrys apifera* of science, the spider orchis, or *Ophrys aranifera,* and the fly orchis, the *Ophrys muscifera*, are other interesting species, deriving their common name from the likeness of the blossoms to the various animal forms whose names they respectively bear.

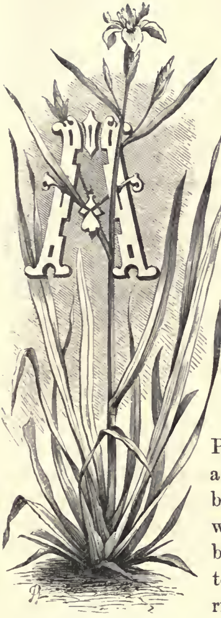
The broad-leaved garlic, the second plant on our plate, and the *Allium ursinum* of systematic botany, is perhaps one of the most graceful of all our spring flowers, its leaves elegant in shape, and of a delicate green, and its umbels of pure white star-like flowers being conspicuously beautiful, though the strong onion-like odour that it gives out when gathered often leads to its being very summarily dismissed from the nosegay. Though generally distributed throughout the country, it is not everywhere common; shady hedge-rows and moist woods are its favourite spots. It is a flower of the spring and early summer, and is often unconsciously the cause of much disappointment, as before the flowers appear the general appearance of the plant is not unlike that of the lily of the valley, and we have two or three times known its blossoms anxiously watched for, and its beauties very scornfully treated when they were not those of the May-lily.



YELLOW IRIS

THE YELLOW IRIS.

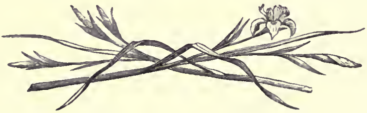
Iris pseudacorus. Nat. Ord., Iridaceæ.

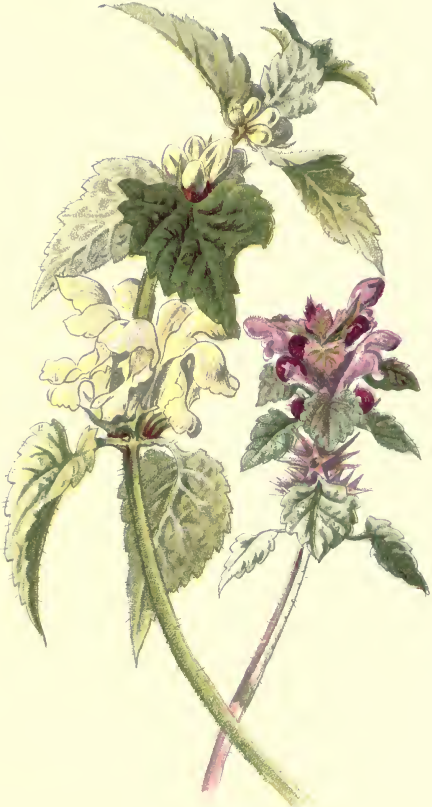


AMONG the many beautiful flowers that fringe our rivers, or rest upon their surface, the yellow iris, the plant figured in the present plate, is one of the most beautiful and conspicuous, being perhaps only less striking than the water-lilies, to which the pre-eminence over all their lovely rivals must surely be accorded. The plant is known botanically as the *Iris pseudacorus.* Provincially it is often called "segg," a corruption of the word sedge, and both derived from the Anglo-Saxon word *segg,* a small sword, the name being employed in obvious allusion to the long sword-shaped leaves that rise so boldly from the water. It is also called the fleur-de-lys and the yellow flag, the outer segments of the perianth fluttering in the breeze in a degree that suggested to some early writers the waving of a flag. The resemblance of the blossom to the heraldic fleur-de-lys is too far-fetched to make the name at all appropriate, the device in blazonry being, in fact, so arbitrary and conventional in character that some half-dozen objects of the most diverse character have been selected by various theorists as being the probable types, natural or otherwise, on which the form was based. The generic name of the plant is derived from the Greek word for rainbow, on account of the rich and varied tints of the numerous species included in the genus, while the specific name, *pseudacorus*, points out that it bears a certain resemblance to another plant, *pseudes* being the Greek word for false, while *acorus* is the generic name of the sweet sedge. The leaves of each of these plants are of very similar form, size, and general character, but the foliage constitutes the only real point of resemblance. The sweet sedge is, moreover, much more rarely met with, and has a rich and aromatic scent that would at any time suffice to make a real confusion of the two plants impossible.

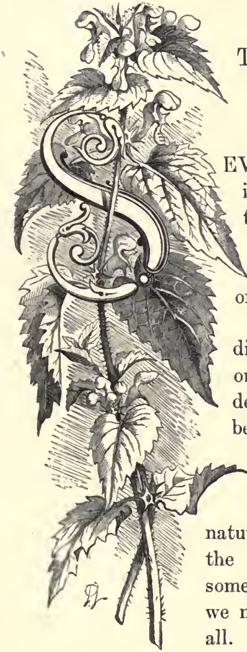
The yellow iris ordinarily comes into blossom in the latter half of May, rarely lasting in flower beyond the beginning of July. The root-stock is large and runs horizontally, throwing off numerous stems and leaves, and is so astringent that it has been employed as a medicinal agent, though it is not now included in our pharmacopœia. It may also be used in the place of galls in the making of ink, and yields, with sulphate of iron, a good black dye. Before drying the acidity of the taste is so great that it can scarcely be employed at all in medicine, but this property is lost on drying the roots thoroughly, though the strongly astringent qualities remain. The root-stocks of the *Iris Florentina*, a kindred species, yield the iris (or as it is more commonly called, orris) root used in perfumery. It is collected chiefly in the neighbourhood of Florence and Leghorn. The flowers rise, as may be clearly seen in our plate, from a large sheathing bract, or floral leaf, and are divided into nine conspicuous portions—viz., the three outer segments of the perianth, which, from their size and reflex growth, form the most noticeable feature; then, alternating with these, the three much smaller and upright-growing inner segments; while over the three larger portions of the perianth we find a third series of forms, the three petaloid stigmas covering the stamens. The construction of the blossom is altogether very interesting, and will well repay careful investigation and dissection into its component parts. The same general idea, if we may use the expression, runs through the building up of the flowers of the various species of garden iris—the *Iris Persica,* with its delicious scent; the snake's-head iris (*I. tuberosa*), the Chalcedonian iris (*I. Susiana*), and many other equally well-known and esteemed species, though various modifications of size and form will be found, in some flowers one ring of parts being more especially striking and conspicuous, in others another. Though the yellow iris in a wild state is always found either rising from the bed of the shallow stream, or amongst the vegetation that fringes its banks, such close contact with the water does not seem absolutely needful, judging by the healthy vigour of a plant in our own garden, that is flourishing many yards from the banks of the Kennet, and seems in all respects as much at home as those that in rich profusion blossom by the side of the stream. If the plant could bear a still further removal from the neighbourhood of the water, and thrive equally well in an ordinary flower-border, it would form a very desirable acquisition, and would be fully entitled to rank in esteem with the lily of the valley, the wallflower, and the foxglove, plants that, though really wild, are so frequently met with in cultivation. After the decay of the flowers the seed capsules take their place, and are sufficiently large, being some three inches long and fully an inch in diameter, to attract attention. The numerous seeds they contain have sometimes been roasted, and a decoction made from them that is said to be not unlike coffee. The capsule is three-celled, and if cut transversely with a sharp knife, has a very pleasing form of section; and, in fact, we would recommend our readers who take any interest in the study at all to subject many other fruits to a like process. Many of the sections thus afforded are strikingly beautiful in form, those of the various umbelliferous plants, such as the hemlock, carrot, or hare's-ear, being pre-eminently so.

The fœtid iris, gladdon, or roast-beef plant, is the only other indigenous species of the genus. In this the flowers, somewhat smaller than those of the *I. pseudacorus*, are ordinarily of a bluish purple, though a variety with yellow blossoms may sometimes be met with. It is a dweller in woods and hedgerows, and though fairly common, is by no means so widely distributed as the water iris. The botanical name (*I. fætĭdissima*) is sufficiently expressive of the disagreeable odour that is given out when the plant is bruised or crushed, though some have preferred to detect a resemblance to roast beef.





DEAD-NETTLE – RED & WHITE.



THE WHITE AND RED DEAD-NETTLES.

Lamium album, Lamium purpureum.
Nat. Ord., Labiatæ.

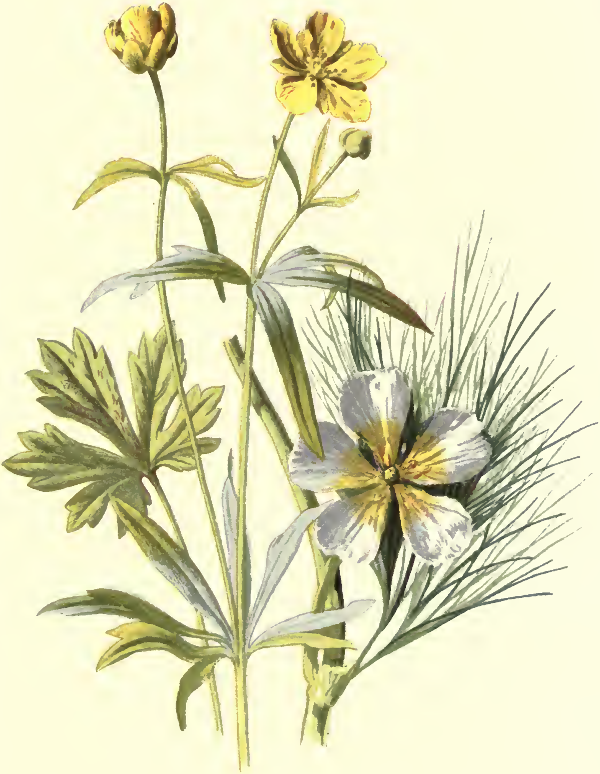
SEVERAL species of dead-nettle are indigenous, and of these we figure three, the white and red being represented on the present plate, while the third appears further on in our series.

These plants are all called indifferently dead-nettles, blind-nettles, or archangels, the proper prefix defining the colour of the plant being also given, that the particular species in question may be identified. The first two names point clearly to the harmless nature of the plants as contrasted with the stinging-nettle, a plant they in some degree resemble, while the third we must perforce leave unexplained at all. The old names of plants appear to have been often very arbitrarily bestowed, and any meaning that may have decided their choice is not uncommonly now lost to us. The name is somewhat high-sounding, and we can recall with great amusement the blank astonishment exhibited in the face of a friend, who, after having his curiosity aroused by so striking a name, impatient to see so distinguished a plant, had it at last placed before him. To what seraphic height his imagination had soared we never knew, but "a flowering nettle" evidently fell far below the ideal he had conceived. The botanical name of the white dead-nettle is *Lamium album*, and that of the red-flowered species *Lamium purpureum*. These specific names are sufficiently explanatory to need no elucidation, we imagine, to any of our readers, while the generic name is derived from the Greek word signifying the throat, in allusion to the form of the blossom in these plants.

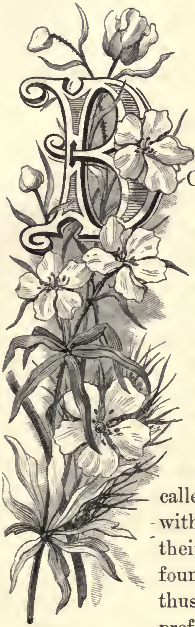
The white dead-nettle is exceedingly abundant in the hedgerows, on banks, and in waste places and rough ground, and being a perennial, does not, when it has once established itself, give up possession easily. The whole plant is somewhat coarse in appearance, and when bruised has a strong and rather disagreeable smell. The plant ordinarily grows about a foot high, but as it is generally amidst long grass and coarse herbage of one sort or another; the whole plant is rarely seen unless gathered with that intention. The leaves are given off from the stem in pairs, each pair being at right angles with the pairs immediately above and below it, and in the axils of these leaves the whorls or rings of flowers are developed, each ring being composed of from six to twelve blossoms of a delicate creamy-white. The teeth of the calyx are very long and spreading, and form a conspicuous feature, while the form of the corolla, as it rises and towers above the calyx, is very graceful and beautiful. The plant is evidently a favourite with the bees, that may be seen busily at work in the flowers in the sunshine.

The red dead-nettle is almost as abundant as the white, though being ordinarily a much smaller plant, it does not so readily attract attention. It is found in the same spots as the *Lamium album*, and is one of the earliest weeds to spring up in the neglected garden, but, being an annual, it may easily be eradicated when greater diligence has changed the waste into a pleasaunce, and the legitimate denizens of the garden claim their own again. Both these nettles flower throughout the whole year, though, like all other flowers, they are not insensible of the charms of the spring and the glorious sunshine of summer, and are at these seasons, more especially, commonly to be met with in blossom. The leaves of the red dead-nettle are somewhat broader in proportion to their length, and more heart-shaped, than those of the white nettles, and, especially near the top of the plant, are much more crowded together on the stem; the arrangement in pairs pointing in alternate directions is similar to that noted in the white dead-nettle. The upper leaves of the red nettle are sometimes densely clothed with silky hairs, and are often of a deep purplish crimson, a colour that in some cases suffuses the whole plant, foliage, stem, and blossom all alike glowing with it, and rendering it much more noticeable and striking in appearance. When the plant grows in the rank grass of the hedge-bank it is often drawn up to a very considerable length, and is then so different in appearance to the more typical forms that a novice might well be pardoned in thinking that a plant so dissimilar could scarcely be practically the same. On the open ground the plant is somewhat spreading in habit, rarely more than six inches in height, and ordinarily more or less warm and rich in colour, while specimens gathered from the midst of crowded and rank vegetation are often more than a foot long, and, with the exception of the blossom, which is ordinarily a paler and sicklier purple than in the plant grown under more favourable circumstances, are of a dull green throughout. The main stem of both the white and red dead-nettle is found to be square in section, and hollow, if cut transversely.

Besides the yellow dead-nettle, to be hereafter described, we have the henbit, or *Lamium amplexicaule*, a very fairly common species, not altogether unlike the red dead-nettle, but somewhat lighter and more graceful in appearance, the fine, deep rose-coloured flowers having a much more slender tube, and therefore thrown further out from the mass of leaves. The spotted nettle, the *Lamium maculatum* of some botanists, who give it the rank of an independent species, is by others regarded merely as a permanent variety of the white dead-nettle, which it closely resembles, except that the flowers are pale purple instead of white, and that the foliage is often marked by a broad irregular streak of white down the centre of each leaf, generally accompanied by smaller dashes or spots on either side. This plant has but very slight claims, however, to rank as a true wildling, though it may often be met with in old-fashioned country gardens, and it is very probable that such specimens as may be met with, apparently in a wild state, are really but the outcasts of some cottager's garden.



GOLDILOCKS & WATER RANUNCULUS



THE GOLDILOCKS AND WATER RANUNCULUS.

Ranunculus auricomus, Ranunculus aquatilis.
Nat. Ord., Ranunculaceæ.

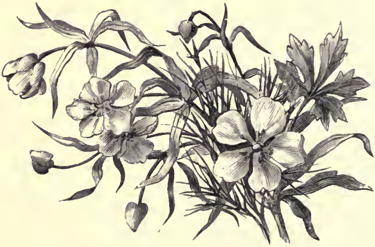
BOTH the plants represented in the present plate, though very distinct in appearance, belong to the same botanical genus, the goldlilocks being the *Ranunculus auricomus* of science, and the water ranunculus the *Ranunculus aquatilis.* Besides the present plants, the buttercup, or bulbous crowfoot, already referred to, and the lesser celandine, which forms the subject of future illustration, we have several other indigenous species, all more or less popularly called buttercups, and all freely to be met with, though some are much more local in their range than others, and are only to be found in the special habitat of the species; thus the wood ranunculus, so called from its preference for the woodland shades, should be sought for in coppices or sheltered hedgerows; while it is evident that though the water buttercup may be common enough in a given locality, we shall search for it in vain in the woods or on the open downs or pasture land.

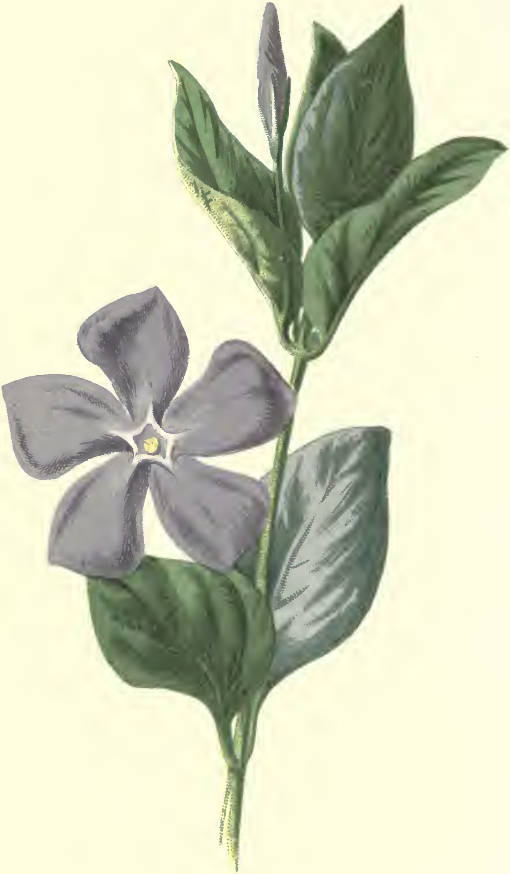
It is difficult to explain why the *R. auricomus* should have got its familiar name of goldilocks, its golden crown of blossom, beautiful and striking as it is, not being, at all events, more beautiful or striking than we find it in many of its allies. The motive that influenced those who first named the plant thus cannot now certainly be known. Ben Jonson uses the word in the following lines:—

> "Bring corn-flag, tulip, and Adonis-flower,
> Fair ox-eye, goldylocks, and columbine,
> Pinks, goulans, king-cups, and sweet sops-in-wine."

The goldilocks, or wood crowfoot, as it is sometimes termed, is not unfrequently met with in the woods and coppices —the localities that are, as we have already idicated, the especial habitat of this particular species of buttercup. The flowers ordinarily appear about the end of March, and specimens may be met with throughout April and May. The plant is a perennial. The general growth of the plant is upright, a long central stem, about a foot high, with a few lateral stems given off at a very slight angle being the ordinary and characteristic growth. The effect of the plant, as a whole, as we see it rising in the midst of the undergrowth of the copse, is very delicate and graceful; the leaves are of a light and tender green, and there is a refinement of general form that is sufficient to distinguish it from the other kinds of buttercup, which, though mostly graceful and rich in form, have a certain rankness and coarseness about them that is agreeably wanting in the goldilocks. The petals of the flowers are sufficiently wide apart at their bases to enable us to see a good deal of the upper surface of the sepals; they do not form so compact a circle as in the bulbous crowfoot, for example. The sepals are not so entirely green as we find them in most plants, but share with the petals some of the rich golden yellow that makes the latter so brilliant and attractive. The leaves given out at intervals from the stem are but few in number, and are divided to their bases into a series of long and narrow segments. The radical leaves are on long stalks (those on the stems being stalkless), much larger, and having the lobes of which they are composed broad and well developed. These lower leaves are rarely noticed amidst the long grass and herbage in which the plant is ordinarily met with, and it is only by carefully tracing the stem down to the ground that they may be discovered, and their relationship to the stem leaves that are so very different in form satisfactorily established. The goldilocks has not the acridity that is so marked a feature in most of the other species of buttercups, some of which have been employed medicinally from these acrid and rubefaciant properties, though their action is so far irregular and violent as to make them by no means safe remedies.

The *Ranunculus aquatilis*, water buttercup, ranunculus, or crowfoot, is one of our most abundant species, being met with in streams and ponds everywhere through Britain; and it would appear to be almost equally common in localities so widely separated as Lapland, Canada, Siberia, and Australia. The flowers are white, with yellow centres. The water buttercups are by some writers termed *Batrachian ranunculi*—Greek, *batrachos*, a frog, a sort of duplication and added emphasis, the generic name Ranunculus being itself derived from the Latin *rana*, a frog, each term, either alone or in more emphatic conjunction, being applied to mark the fondness of the plants for low-lying damp ground. The blossoms appear about the middle of May, and ordinarily in such profusion as to make the whole surface of the river or pond one sheet of white. The water buttercup is subject to much variation, more or less permanent, and on these modifications of forms different writers have based certain specific differences; one author recognising seven species, another six, while a third limits himself to one, but admits that it has three distinct varieties. The one figured in our illustration is the species or sub-species known as *R. fluitans.* It is only found in running water; all the leaves are submerged, and deeply cut into very low and about parallel segments, while in other sub-species found in still water, besides the submerged and finely-cut leaves there are floating leaves of a form very similar to the radical leaf of the goldilocks. The various features on which some botanists found specific differences are so inconstant, and appear to depend so much upon the circumstances in which the plant is found, that the question how far the species may be split up must always remain an open one.

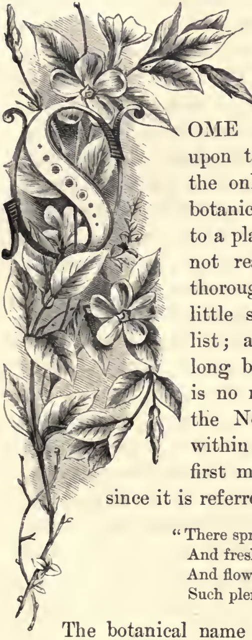




PERIWINKLE

THE PERIWINKLE.

Vinca major. Nat. Ord., Apocynaceæ.



SOME little doubt has been thrown upon the claims of this plant—one of the only two British examples of the botanical order to which it belongs—to a place in our flora; but even if it be not really a native, it has become so thoroughly naturalised that we need feel little scruple in admitting it into our list; and there is no doubt that it has long been flourishing amongst us. It is no recent importation, like some of the North American plants that have within the memory of living botanists first made their appearance amongst us, since it is referred to by Chaucer:—

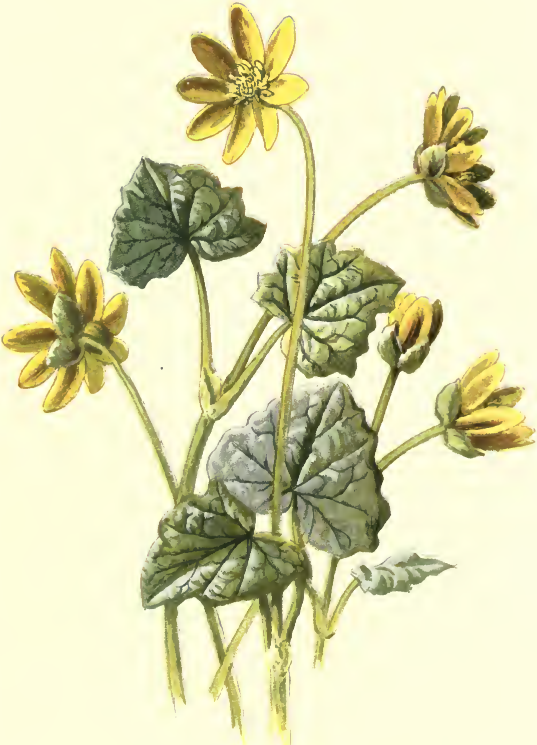
> "There sprang the violet all new,
> And fresh pervinke rich of hew,
> And flowers yellow, white, and rede,
> Such plenty grew there never in mede."

The botanical name of the plant is the *Vinca major*, the lesser periwinkle, a very similar plant to this, being known as the *Vinca minor*. In the larger periwinkle—the species we have figured in our plate—the stems, though weak and trailing, are much stronger and more erect than in the smaller periwinkle; and the leaves of the present species are considerably broader in proportion to their length than in the other plant, in the one case the foliage being what is botanically termed ovate, *i.e.*, approximate to the shape of an egg, while in the other they are lanceolate, a form more resembling that of the head of a lance or spear. The larger periwinkle is as large again in all its parts as the smaller. Both species flower in the spring, and last for some considerable time—in fact, there are few weeks in the year when some stray blossoms may not be met with, though April, May, and June may more especially be considered the flowering season. In our botanical diary we find a note to the effect that we were able to gather some of the flowers on the 1st of January. The flowers vary somewhat in intensity of colour, but the specimen illustrated in our plate may be considered a very fairly typical one. The curious form of the corolla must not be overlooked. It is composed of five similar parts, as in the case of the silverweed, depicted in a preceding plate; but, unlike that and most other flowers, these parts or segments are not capable in the periwinkle of an equal division by an imaginary line drawn from their apex to the centre of the flower. In some few other flowers, as in the St. John's wort, we see this same peculiarity, but it is very exceptional. The great majority of flowers have their petals or segments bisymmetrical in form; a line from apex to base would divide each into two similar parts.

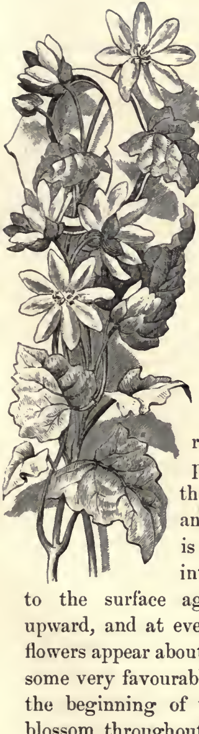
The periwinkle is very commonly met with in woods and hedgerows, and when found at all, is generally in great profusion; and we can readily call to mind an embankment not half a mile from where we are now writing where a space some ten or twelve yards long and five or six yards broad seems to be the exclusive property of this striking plant, its hundreds of expanded blossoms making quite a grand display in the spring and early summer. The plant is a perennial one, and retains its leaves throughout the winter; hence, if a locality for it be once known, it may at any time be discovered. The leaves are sometimes met with having streaks of lighter green upon the dark rich colour that is characteristic of the foliage. Such varieties are, however, accidental, and comparatively rare. The plant seldom, if ever, ripens its seed—a fact that the opponents of its claim to be indigenous point to in confirmation of their opinion; and, as in other and more southern countries it does so, they have so far a point in their favour, though the fact is by no means a conclusive one. The plant propagates itself by its long trailing and rooting stems, and by their means not only extends itself rapidly in every direction, but manages to gain an almost exclusive possession of the soil, since little or nothing else can maintain its ground against the dense mass of matted stems, that deprive all weaker plants of light and air. The leaves, as will be noticed in our plate, are always placed in pairs upon the stem, while the flowers grow singly from their axils. The calyx is deeply cut.

Though not recognised as having any healing value in the *materia medica* of the regular practitioner, an ointment prepared from the leaves of the periwinkle is largely employed by country housewives. It is reputed to be both soothing and healing in all inflammatory ailments of the skin, though the order to which it belongs includes many species, mostly tropical, that have distinctly poisonous qualities; and though many of the species are employed medicinally, great care is needed in their administration, and the roots of the British species are very bitter and astringent in their nature. In the Middle Ages its binding qualities were held in such esteem that it was thought they even affected the moral atmosphere, and old writers gravely advise the eating of its leaves by man and wife to establish and confirm them in loving confidence and close affection.

The *V. rosea* may sometimes be met with in cultivation, though it is not sufficiently hardy to brave our climate without protection. It is a native of Madagascar, China, &c. The general appearance and size of the plant is very similar to that of the species figured, but the stems are more upright, and the blossom, instead of being the somewhat dull purple found in both our English species, is a rich crimson.



LESSER CELANDINE



THE LESSER CELANDINE.

Ranunculus Ficaria. Nat. Ord., Ranunculaceæ.

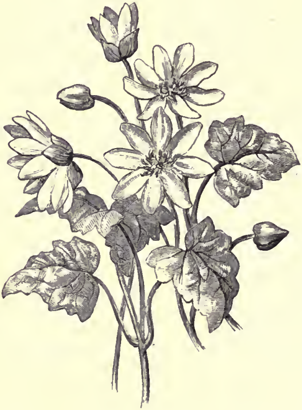
ONE of the characteristic plants of the early spring is the pilewort, swallowwort, or lesser celandine, the *Ranunculus Ficaria* of botanical nomenclature. It grows very freely in damp spots, and is one of the few plants that will thrive beneath the shade of trees, where it often forms a dense carpet of glossy foliage. Its root produces thick club or fig-shaped tubers, and by these the plant is increased, as they break off very readily, and each tuber, like a potato, produces a fresh plant; if, therefore, the ground be not thoroughly cleansed, any labour spent in clearing them away is but lost, and if the plants are dug into the soil they work their way up to the surface again, the stem branching as it goes upward, and at every joint producing fresh tubers. The flowers appear about the middle of February, though under some very favourable circumstances they may be found by the beginning of the month, and the plant remains in blossom throughout March, April, and May, the month of

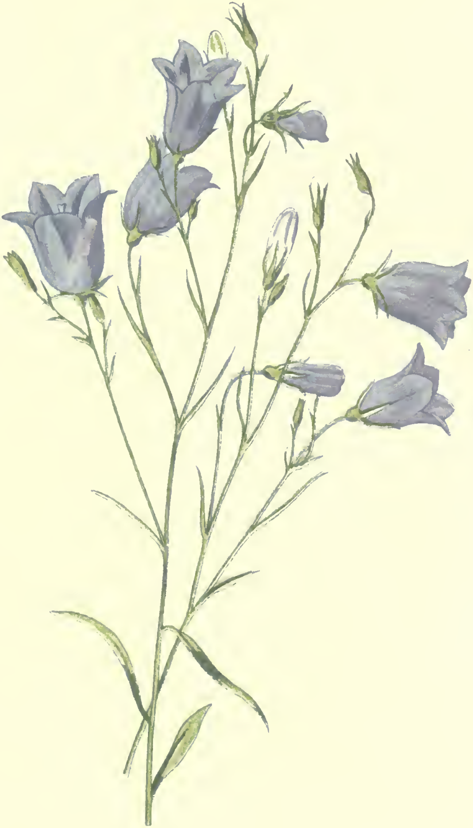
April being, perhaps, that in which it may be seen to most advantage. The flowers, as the spring passes into summer, often pale a good deal, and look generally poverty-stricken, probably because the warmth of the lengthening days withdraws from the plants some of that moisture that is so essential to their well-being. The characteristic tubers give the plant its specific name, *Ficaria* being derived from *ficus*, a fig, in allusion to the fig-like form of those members. The significance of the generic name we explain in our remarks on the bulbous crowfoot, another member of the genus. The flower of the lesser celandine forms a very pleasing star, and when seen in the number in which they ordinarily may be met with they light up very agreeably many a dull and sombre corner of the shrubbery or wood. The petals vary a good deal both in number and size—in number when comparing one flower with another, and in size when comparing together the various units that go to make up each corolla. From six to ten is about the average number of petals, though they may be found in even greater number. The surface of the petals is peculiarly glossy. All the leaves grow on long leaf-stalks, and are much simpler in outline than in most of the buttercups, and they have a soft, mucilaginous character that has tempted the bold experiment of using them as an article of diet, either boiled, or in the raw state as a salad. The calyx has only three sepals, a peculiarity that may be noticed in the back view of one of the blossoms in our illustration. The plant derives its name celandine from the Greek word *chelidon*, a swallow, from an old belief that the flower was supposed to appear on the arrival of the swallows, and to die at their departure: the plant, however, appears in blossom long before the swallows visit us, and it, indeed, owes much of the interest felt in it to the fact of its being one of the earliest pledges that the long reign of winter is ending, and that the brighter days of spring are coming.

Pansies, lilies, kingcups, daisies,
Let them live upon their praises;
Long as there's a sun that sets,
Primroses will have their glory;
Long as there are violets,
They will have a place in story:
There's a flower that shall be mine,
'Tis the little celandine.

The flower was an especial favourite of Wordsworth's; its praises are enshrined in his verses, its blossom carved on the white marble of his tomb. The plant is called the lesser celandine to distinguish it verbally from another having the same name, but which bears no relationship, and has no similarity, to it. The confusion of name seems to have arisen some three hundred and sixty years ago, when John Gerade, a very noted herbalist, published a list of all the plants in cultivation in his garden, on Holborn Hill, and introduced in it, under the same name, this and the celandine proper, the *Chelidonium majus* of later botanists, probably because both may be found in bloom when the swallows arrive, though the same simple principle of nomenclature might as justly have made the primrose, hyacinth, cowslip, anemone, and many other plants into celandines as well—a consummation certainly not devoutly to be desired in the interests of specific identification.

Besides the species already referred to, there are several other conspicuous members of the genus. The great ranunculus, or spearwort—the *R. lingua* of botany—is perhaps the most striking of these, having stems from two to three feet high, and brilliant yellow blossoms over an inch in diameter. The celery-leaved ranunculus, the *R. sceleratus,* is another very interesting species; in this the flowers, though very numerous, are by no means conspicuous, as they are individually small in size and of a rather pale yellow. The corn crowfoot, the *R. arvensis* of scientific nomenclature, is a third species; it is very ordinarily met with in corn-fields. The leaves are very deeply cut, the flowers rather small; perhaps the most striking feature being the very quaint and curious form of the fruit that succeeds the blossoms.

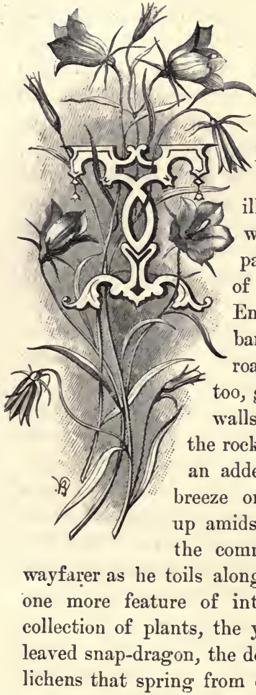




HAREBELL

THE HAREBELL.

Campanula rotundifolia. Nat. Ord., Campanulaceæ.



THE graceful little plant that forms the subject of our present illustration is abundantly met with throughout Britain, on hilly pasturage, such as the great ranges of chalk downs in the south of England, on heaths and sandy banks, and springing by the dusty roadsides. It may often be found, too, growing in the interstices of old walls, or springing from crevices in the rocks. Wherever found it is always an added charm, whether dancing in the breeze on the sunny hillside, springing up amidst the purple heath that mantles the common, cheering the sight of the wayfarer as he toils along the bare hard road, or giving one more feature of interest and grace to the choice collection of plants, the yellow stonecrop, the quaint ivy-leaved snap-dragon, the delicate ferns, the grey and orange lichens that spring from every nook and crevice of the old stone wall, or the great rocky masses of the mountain-side. The plant is a perennial, and flowers from the beginning of July to the end of September.

The harebell is, in botanical parlance, the *Campanula rotundifolia.* The generic name signifies a little bell, in obvious allusion to the form of the flower, which, as our readers will readily perceive by a glance at our sketch of the plant, is very bell-like in form. The specific name does not so clearly carry its meaning on the face of it. The word means round-leaved, while a second glance at our illustration at once shows us that the leaves are certainly not rounded in form at all, but decidedly long and narrow, much longer and narrower than the great majority of the leaves of our plants; the name, therefore, at first sight appears almost ludicrously inappropriate. The name, we must confess, does not appear to us a very happy one; but it has some justification, as the lower leaves of the plant are considerably broader than the upper, and those that spring at the base of the stem might very justly be called round leaves. These are, however, rarely seen, partly because they are generally hidden by the other herbs in the midst of which the plant grows, partly because they wither away long before the rest of the plant ordinarily succumbs to climatic influences and the onward march of the year, and will not, therefore, always be found, even if searched for. The English name was bestowed upon it, we are told, because it grows on the dry and hilly pastures frequented by the hare; but we would suggest, at least an alternative derivation—or, rather, the plant itself suggests it—as to whether it may not have originally been named hairbell, from the extremely light and delicate stems from which the blossoms hang. Another plant, equally light and delicate, is named the maiden-hair.

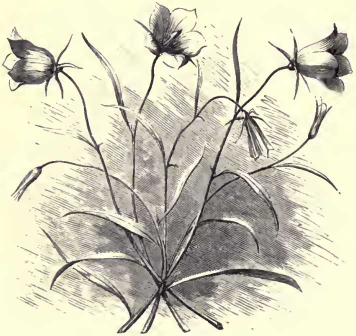
The flowers of the harebell are ordinarily a delicate shade of purplish-blue; but the colour varies a good deal in intensity, and the flowers may at times be met with pure white. The inflorescence is lax, and made up of but few flowers. These ordinarily droop, though they are not so distinctly pendulous as the flowers of a fuchsia, for example, but strike off at all sorts of quaint angles from the general line. The plant varies very much in height, according to the situation in which it is met with—from an inch or two to about a foot. The stem often branches a good deal. The segments of the calyx are very acute.

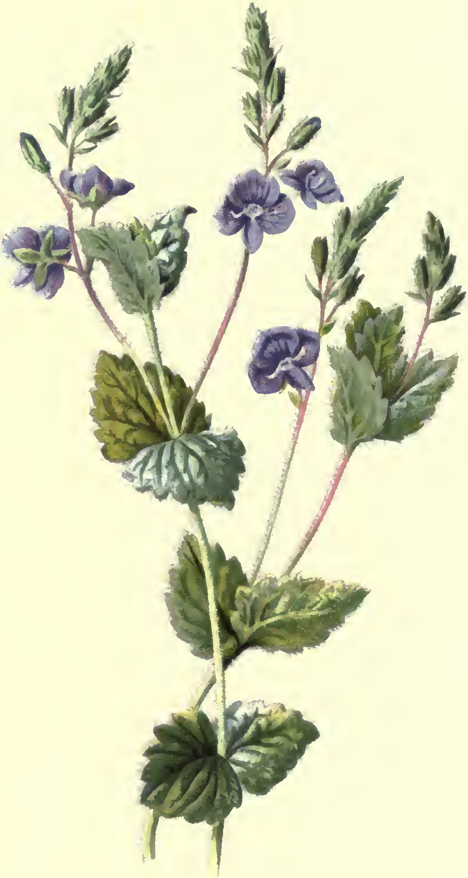
The harebell is in Roman Catholic countries dedicated to St. Dominic. Though so graceful a flower, it appears but seldom in any poetical association in our literature. It is the true "blue-bell of Scotland," though that name has also been bestowed on the wild hyacinth, a plant already figured. Scotland is pre-eminently the land of the mountain and the moor, and it is on just such spots as these that the harebell flourishes, and where the wild hyacinth would never be met with. The claim of the former plant is therefore overwhelming. If we add to this the fact that the harebell flowers throughout the summer and autumn, while the wild hyacinth is but found for a month or so in early spring, we have, we think, said sufficient to show that those who make the harebell rather than the other flower the blue-bell of Scottish poetry have all the probabilities on their side. Grahame refers to the plant in the lines—

> "Nature gives a parting smile.
> As yet the blue-bells linger on the sod
> That copes the sheepfold ring; and in the woods
> A second blow of many flowers appears,
> Flowers faintly tinged, and yielding no perfume."

Ten species of the genus are met with in Britain. Of these several are sufficiently common to come within the observation of most people. One species, the *C. glomerata*, or clustered bell-flower, may be readily distinguished from all the others by its terminal cluster of sessile or stemless flowers. In all the other indigenous species the blossoms are borne on long foot-stalks. The nettle-leaved bell-flower (*C. trachelium*) and the ivy-leaved bell-flower (*C. hederacea*) are two very common and graceful species. The first has large flowers, and is found in woods and hedgerows, while the second is a very delicate little plant met with in moist shady dells and pastures.

We shall hope in the course of our series to figure and describe at greater length some one or more of our other wild bell-flowers, as there is a great variety of form and size and strength of the purpled azure that makes them so attractive, while all are alike interesting and beautiful.





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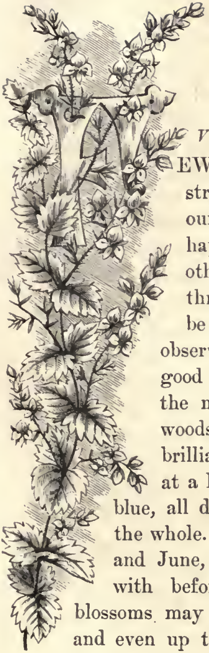
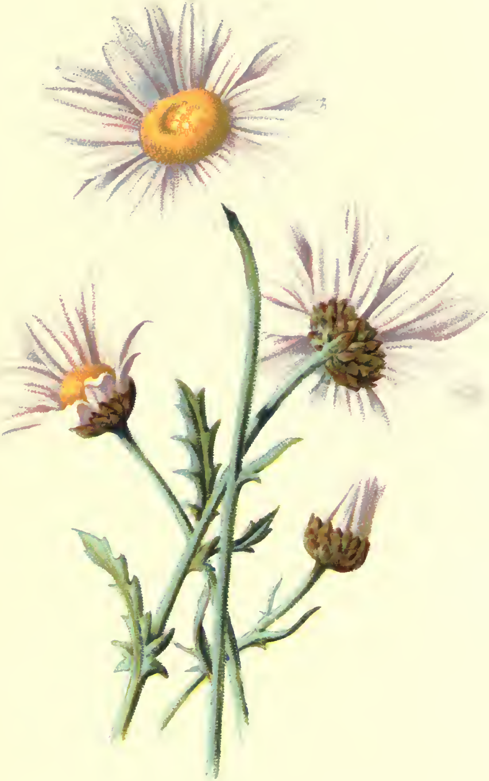
THE GERMANDER SPEEDWELL.

Veronica Chamædrys. Nat. Ord., Scrophulariaceæ.



FEW persons will regard entirely as a stranger the beautiful plant selected for our present illustration, for though perhaps scarcely so freely met with as some others, it is very generally distributed throughout the country, and will hardly be unknown to any persons who care to observe such things if they have had the good fortune to be in the country during the months of spring. At this season the woods and hedge-banks and roadsides are brilliant with its beautiful blossoms, telling at a little distance as large masses of deep blue, all detail being lost in the rich effect of the whole. The plant is at its best during May and June, though it may occasionally be met with before the middle of April, and stray blossoms may be found all through the summer, and even up to chill October. The aspect of the plant as the summer goes on is, however, by no means so elegant as in the earlier weeks of its appearance, as the lower flowers of the racemes wither away, and are succeeded by the capsules containing the seeds, and, as the stems elongate, the general effect is poorer, a certain wild, straggling look, and thinness of appearance being too evident to be altogether pleasing. The plant, like most other wild flowers, is rather variable, some specimens being much larger than others, though the smallness of the less developed specimens renders them no less beautiful. In one plant we gathered while looking out examples for our plate, the total height was less than four inches, and yet in a space no larger than a shilling would cover it had seven fully expanded blossoms, besides others in various stages more or less forward. The plant is the *Veronica Chamædrys* of the botanist. Whatever force of meaning was originally supposed to rest in this name would now appear to be lost, for while some writers think the name to be eastern in origin, and to signify good remembrance, others trace in the flowers some resemblance to a face, and think the name to be derived from the Greek words signifying sacred and a picture, in allusion to the monkish legend of St. Veronica, who wiped the drops of agony from the Saviour's brow with her handkerchief, which ever after bore the impress of His features. The meaning of the common English name is equally obscure. In some parts of the country the children call the plant bird's eye, probably from its brilliant colour, the pupil of the eye of the jackdaw being, for example, very much the same tint, and probably other birds may supply a further optical proof of its fitness as a name for the plant, though we cannot ourselves at the moment recall a second example of the occurrence of the colour. The flowers occasionally are of a somewhat pinkish purple, and are more rarely met with almost or entirely white; in fact, almost all plants, if they have any tendency at all to depart from the normal and typical colouring, will at times be found with white blossoms—the hyacinth, bugle, heath, herb-robert, and many other plants afford an illustration of this fact in plant colour. In some cases possibly insufficient nutriment may have produced the effect, but ordinarily one notices no circumstance that accounts satisfactorily for the deviation from the ordinary colouring. The stem is weak, and the whole plant fragile, drooping very quickly when gathered. The leaves are very shortly stalked, very deeply furrowed by the veins, and deeply serrated. The inflorescence is racemose in character, the flowering stems springing from the axils of the leaves; the flowers are very fugacious, hence it is a most unsatisfactory plant to gather, as on arriving home with the treasure it will ordinarily be found that something like nine-tenths of the blossoms are either entirely missing, or are very quickly lying scattered on the table on which the glass containing the bunch has been placed.

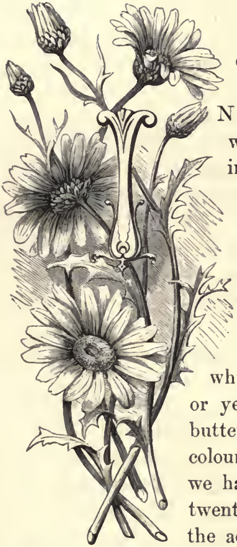
The names of plants, both those assigned by science and those in daily use by the unlearned, will often repay analysis, though some of our readers may have a feeling that the subject cannot but be dull and uninteresting, and will further feel justified in their opinion by the authority of our great poet, whose lines, "What's in a name, that which we call a rose By any other name would smell as sweet," supply them with an apt quotation. Still, the subject is not altogether devoid either of interest or practical utility, for though some of the names of our English plants cannot now be satisfactorily analysed, there remain many which, when their significance is understood, may yield considerable information, some by their associations recalling the festive customs of the so-called "good old times;" while others again appeal to the poetical element in our nature, or point out a practical domestic or medicinal service rendered. Names based upon poetical associations form but a small class. The first instance which naturally rises to our mind is the pretty little blue forget-me-not with its well-known legend. Some of our readers will probably, however, be surprised to learn that that plant has only borne that name for about fifty years. In two books published in the sixteenth century the germander speedwell is termed the forget-me-not, while most writers for a period of more than two hundred years apply the name to a very different plant, and from a very different motive, the ground pine being the plant generally called by that name, on account of the exceedingly nauseous taste which remains in the mouth if any one is so imprudent as to taste the stem or leaves. The speedwell, which has at times by the poets and other writers been called a forget-me-not, receives both these names from the fragile nature of the plant; hence "speedwell," a common form of valediction in the Middle Ages, and almost equivalent in meaning to our more modern "farewell" or "adieu" would seem especially appropriate to this tender little flower. Sixteen other species of speedwells, all members of the same botanical genus as the present plant, may be more or less commonly met with.



OX-EYE DAISY

THE OX-EYE DAISY.

Chrysanthemum Leucanthemum. Nat. Ord., Compositæ.



In writing these few accompanying words to each plate, we are almost invariably met on the very threshold of our subject with a grave difficulty — the difficulty arising from our desire to make our remarks not altogether a repetition of what has been said by scores of writers in scores of books already. When we gaze on a field white with the blossoms of the ox-eye, or yellow with countless thousands of buttercups, its perennial loveliness of colour is ever welcome. The fact that we have seen it all before for, perhaps, twenty summers in succession, gives but the added charm of all the associations of the past to the recurring bounty of Nature.

> "Age cannot wither her, nor custom stale
> Her infinite variety."

When, however, we pluck one of these blossoms, we cannot but feel that little remains to be said. The very commonness of the flower appears to render our comments superfluous. We have, nevertheless, often been surprised to find how little of the biography, the life-history, or even the name of some of our very common plants is known to many whose thoughts do not happen to have been directed in that channel, and who, nevertheless, have a very real and lively appreciation of the charms of these wildlings, and who have something of the apologetic feeling expressed by Wordsworth in his ode to the smaller celandine :—

> " I have seen thee, high and low,
> Thirty years or more, and yet
> 'Twas a face I did not know."

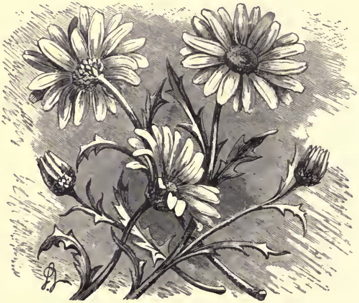
In the hope, then, that to a portion of our readers, at least, our remarks may have some little interest, we take courage anew.

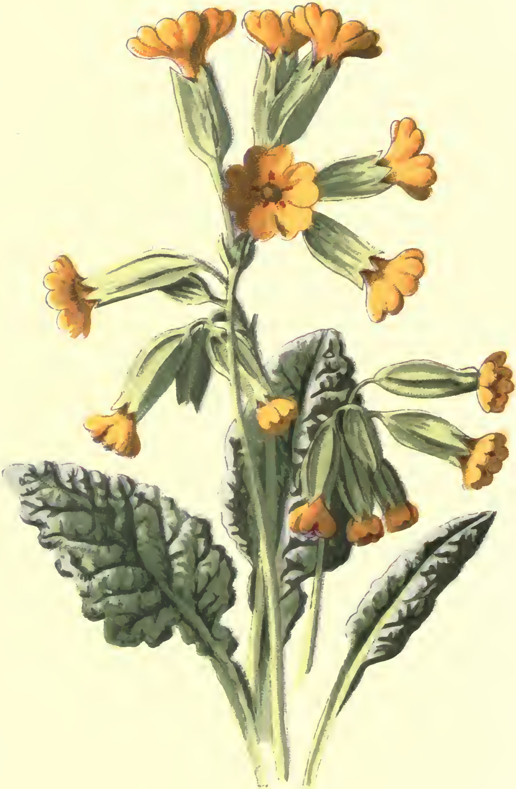
The ox-eye daisy is one of the commonest of flowers in dry pasture-land ; and it may also be seen in rich profusion on the sloping banks of our railways, covering large surfaces with a sheet of white. The flowers are so large and brilliantly white, while the foliage is so scanty, that at a very short distance the mass of white blossoms is alone distinguishable. The plant is a perennial, it is of little or no value as fodder, and it is an indication of poor soil—features that tend to make the agriculturist regard it with no favouring eye. It is said in some works that the leaves are useful as a salad. This, however, appears almost like adding insult to injury. The leaves are so small, as our illustration shows, that we can hardly imagine any one taking the trouble to collect any quantity of them for this object, especially as a person who has so far got over the prejudice of eating such wild herbs would find many others considerably better adapted to their purposes than this. The flowers of the ox-eye enliven the meadows as the grass is growing for the hay-crop ; and any one desirous of obtaining specimens should resort to such spots before the long swathes of grass and blossom fall beneath the keen edge of the scythe. It will ordinarily be found in blossom by the middle of May. It is at its best for about a month after that date; but isolated specimens that have escaped the general massacre of the hay-field may be met with throughout the summer, and even late into the autumn. I is the *Chrysanthemum Leucanthemum* of scientific nomenclature. The genus, deriving its name from the Greek words *chrisos*, golden, and *anthos*, flower, contains only two indigenous species, this under present consideration and the *C. segetum*, or corn-marigold. The two species may readily be distinguished. In the ox-eye the central disc is yellow, and the rays surrounding it are white; while in the marigold the whole flower is yellow. The specific name of the ox-eye signifies white flower, and is, like the generic name, Greek in its origin.

The plant ordinarily grows from one to two feet high. The stems are hard and wiry in texture, furrowed, very slightly branching. The leaves are coarsely toothed. Those near the root are somewhat rounder in form than those on the stem, and are on long stalks; while those that spring from the stem are stalkless. The flower-heads call for no lengthy description. They are clearly shown on our plate.

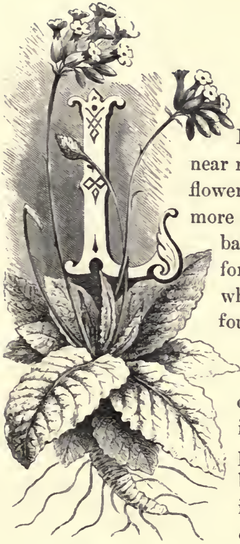
In the north of England and Scotland the daisy is often called the gowan. Where this name is current, the ox-eye daisy becomes the horse-gowan. Many names have "horse" as a prefix. It is ordinarily used to imply that the plant is rather large and coarse, and in the present instance serves very well to mark the difference between the large showy blossoms of the ox-eye and those of the "wee, modest, crimson-tipped flower," the little daisy. Gowan means golden. We see the word again, under slight modification, in the northern name for the marsh-marigold, water-gowlan, and in that of the corn-marigold, gowles or golding; so that it is somewhat of a perversion of the original idea to transfer the epithet to a flower not wholly yellow. It is the "fair ox-eye" of Ben Jonson.

The corn-marigold, or yellow ox-eye, is, as its name implies, one of the characteristic flowers of the corn-field. It is widely distributed, though in some districts it is quite unknown. In Scotland, Denmark, and Saxony it was one of the noxious plants that came within the reach of the law; and those who allowed it to grow in their fields had to suffer the penalty of their neglect and contumacy. It is a very brilliant and beautiful addition, æsthetically, to the field of ripening corn; and we can only regret that it is at the same time a pest to be ruthlessly warred against.





COWSLIP.



THE COWSLIP.

Primula veris. Nat. Ord., Primulaceæ.

LIKE the primrose, the cowslip, its near relative, is one of the characteristic flowers of the spring, the primrose being more especially met with on the hedge-bank or in the coppice, localities affording some little shade and shelter, while the cowslip will ordinarily be found on open pasture and downland. The cowslip is the *Primula veris* of the systematic botanist. The origin of the vulgar name is obscure; it has been suggested that it is probably a corruption of cow's-leek, but this would only appear, assuming it to be so, to remove the difficulty one stage further back, as one fails to see any more distinct appropriateness of title in the possibly primitive form of the word. The plant is also in some parts of the country called the paigle, and in old herbals, the Herb-Peter, the pendant flowers faintly suggesting a bunch of keys, the badge of the great apostle.

The cowslip, like the primrose, may fairly be considered one of the flowers of the poets; Shakespeare and

Milton, to say nothing of many lesser names, frequently introduce it in their writings. Milton calls them the

"Cowslips wan that hang the pensive head,"

a description full of truth, for though the corolla of the blossom is a brilliant and pure yellow, the calyx, which forms considerably the larger portion of the flower, is of a very pale green tint, while the hanging blossoms are another very obvious and characteristic feature.

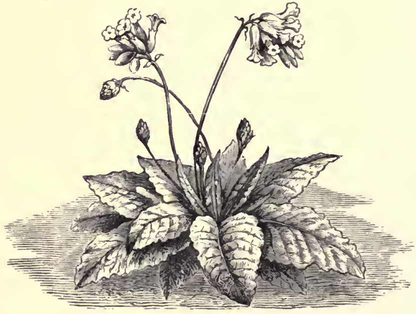
The flowers are arranged in what is termed botanically an umbel, a term employed to express the form of inflorescence wherein the blossoms are borne on little stems that all spring and radiate from one point. The flowering rush affords another good instance of this umbellate arrangement of the flowers: a drawing of it will be found in our series. The number of flowers in the umbel of the cowslip varies very much in different specimens. It is a curious fact that the inflorescence of the primrose is as truly umbellate as that of the cowslip, though in the former case it can only be detected by carefully tracing the flower stems to their base, when all will be found to spring from one common point. In some varieties of the primrose the umbel is raised on a stalk, as in the cowslip. This form is sometimes called oxlip; it is by some writers raised to the dignity of an independent position as a true and distinct species, while others regard it as one of a number of intermediate hybrid forms that may be observed between the primrose and cowslip. Others again consider it but a modification of growth of the former plant. Primrose roots may at times be met with that bear both forms, one or more stalked umbels together with a number of the ordinary type of flower. Linnæus went so far as to group the primrose, the cowslip, and these various intermediate forms together, and to consider them but so many variations of one typical specific form. The whole question is one of great interest, though its full consideration would be foreign to the aim proposed in our present pages, for the primrose and the cowslip, though passing imperceptibly into each other, are in themselves so different that our readers may, for all practical purposes, feel full justification in believing in the distinct individuality of the flowers that in the one case we call primroses, and in the other, cowslips.

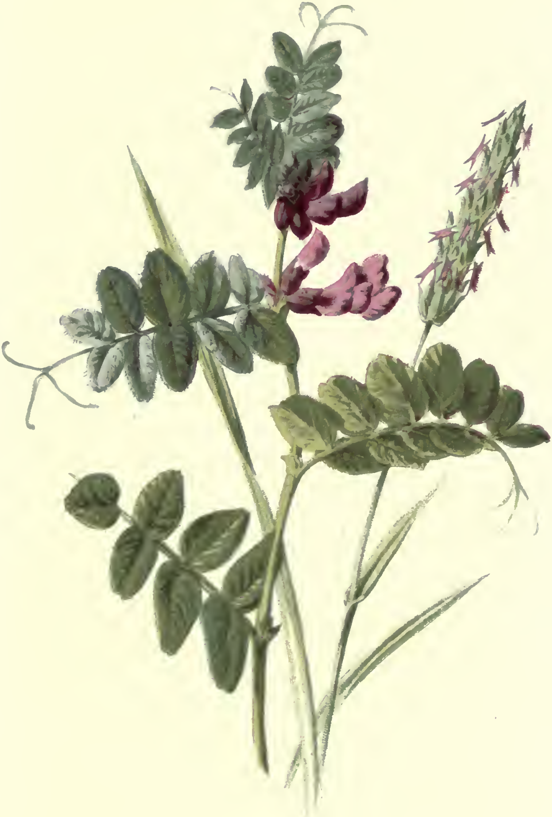
The cowslip contains a large quantity of honey, and is, therefore, a great favourite with the bees, and many of our readers will recall the lines in the *Tempest*—

> "Where the bee sucks, there suck I,
> In a cowslip's bell I lie."

It is also in many parts of the country in request for the making of wine. In olden times the cowslip was deemed particularly beneficial in all paralytic ailments, and is often called the palsy wort, or *Herba paralysis.* The common name, paigle, it has been suggested, is a corruption of these monkish names, but such a derivation appears to us, we must confess, decidedly strained and far-fetched. As the head of flowers is sufficiently like a bunch of hanging keys to have earned it the name of Herb-Peter, as we have already seen, and to make it in Germany the *schlüsselblume*, or key-flower, the theory has been started, that possibly the word paigle may have originated in the Middle Ages as a vulgar corruption of the Latin *clavis.* The Anglo-Saxon name is *cuylippe* or *cuslippe.*

The old writers, as was their wont in most other cases, give a lengthy catalogue of ills that may be remedied by due application of the flowers, roots, or leaves of the plant. A distillation from the blossoms adds to beauty, or restores it when lost; an ointment made from the flowers removes all spots, wrinkles, and other blemishes: "The leaves are good in wounds, and the flowers take away trembling." Its potent effects under various forms of preparation may also be exerted on "vertigo, false apparitions, phrensies, falling sickness, palsies, convulsions, cramps, pains in the nerves," and many another sad infirmity in the list of fleshly woes. We can only conclude, as we look around, that the herb must either have sadly lost its efficacy in these later days, or men their faith in its powers, for the tide of human misery rolls on as though the cowslips no longer dotted in their thousands the verdant meadows, or the breezy slopes of the rolling downs. Any health-giving properties they possess will probably rather be found in the search for them than in any more formal application.





BUSH VETCH & SWEET-SCENTED VERNAL GRASS

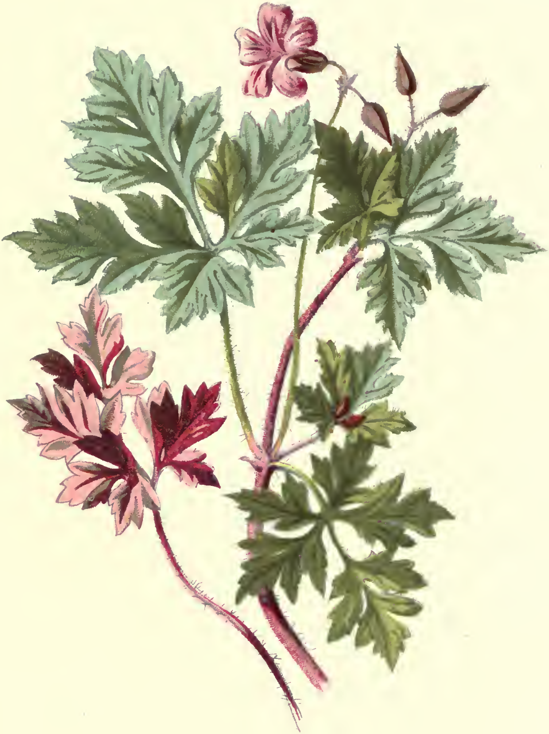
THE BUSH VETCH AND SWEET-SCENTED VERNAL GRASS.

Vicia sepium. *Nat. Ord., Leguminosæ.*
Anthoxanthum odoratum. *Nat. Ord., Gramineæ.*

THE bush vetch, though not so conspicuous as many other plants, is of very common occurrence. It will ordinarily be found in woods and thickets and shady hedgerows, though it is by no means confined to these localities. The specimen we have figured, and which may be considered a very fairly typical example, was growing by the side of a dusty highway on a hedge-bank, facing due south, and entirely without shelter from the direct rays of the summer sun. The plant is commonly distributed throughout the whole of Britain, and may be found in blossom all through the summer months. We see from the records of a local natural history society that its average first appearance in flower, calculated from observations extending over nine years, is the 22nd of April, the earliest date at which it has been observed being April 14th, and the latest May 5th. Once in flower, it may be met with all through June, July, August, September, and October, and occasional specimens have been met with even so late in the year as the middle of November. All these dates are, we need scarcely say, open to correction, according to locality. Marlborough, in Wiltshire, where these observations were made, stands on an elevated plateau of chalk, and suffers, therefore, both from the drought and glare of summer, and the chill winds of winter, more than many other places; and in a sheltered valley not more than seven miles away, Pewsey Vale, almost all our wild plants are a full week earlier in their appearance than on the higher ground. The botanical name is *Vicia sepium*. The generic name is, according to some authorities, derived from the Celtic *gwig*, the name of this or some kindred plant; though, its Latin name being *vicia*, this derivation seems somewhat needlessly far-fetched. The English name vetch, like the French *vesce*, and the German *wichen*, is but a corruption of this. The plant is also sometimes called the tare, and in some of the early English writers we meet with a combination or amalgamation of its two familiar names, as it is in old books oftentimes called the tarefitch. This must not for a moment be confused with the tares mentioned in the Biblical parable. The tares of Palestine bear so close a resemblance to the earlier growth of the barley or wheat that it is practically impossible until the grain is in the ear to distinguish the true from the counterfeit, hence the force of the command of the husbandman, "Let both grow together until the time of harvest." The specific name of the bush vetch simply means "of the hedges," *sepes* being the Latin word for a hedge. The plant is a perennial; the stems are from one to two feet high, weak, and needing the support of other plants to some extent, though, unlike many of the pea-flowers, the whole plant does not climb or cling round them for support, as it merely uses its tendrils to steady it amidst its surroundings. The leaves are composed of from four to eight pairs of leaflets, the central stalk upon which they are borne not being furnished, as in the ash and many other plants, with a terminal leaflet, but elongated into a tendril, ordinarily, though not invariably, branching out laterally into other tendrils. The flowers, two to six in a cluster, are given off at the axils of the leaves, the stems being very short, and scarcely noticeable on a casual glance. The flowers are, as they die off, succeeded by the seed-pods, bright green in colour, and about an inch in length.

The sweet-scented vernal grass may very legitimately be introduced in the background, as it is amidst the various grasses of the hedgerow that the bush-vetch may be freely found, since they supply numerous points of attachment for the hold of the tendrils, and are strong enough to give support without depriving the plant of its due share of air and light. The sweet-scented vernal grass comes into blossom about the middle of April, when its large anthers, as shown in our illustration, render it more noticeable than would otherwise be the case. It is ordinarily abundant in pastures and meadows, and contributes largely to the fragrance of the new-made hay, as it gives off in drying a delicate scent not unlike the wood-ruff; its specific name clearly points to this quality, while the generic name is compounded of two Greek words, signifying yellow flower, from the colour of its spikes when the plant has reached maturity. It is the *Anthoxanthum odoratum* of botanical nomenclature.

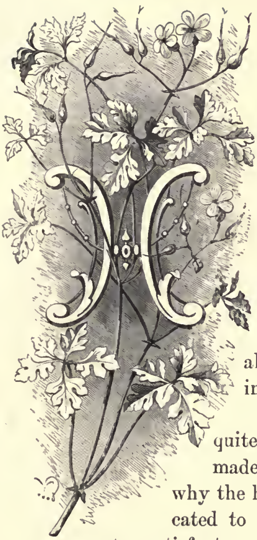
Many of our common grasses will well repay investigation, and there are few things of this sort that are more easily preserved. The collection of dried flowers is often but a sorry substitute for the plants in all their living beauty, as the necessary flattening out destroys much of the charm of the growth, while the colours that were in nature so beautiful, in too many cases become sadly dulled. The difference between the real growth and its mortal remains is too suggestive of the contrast between life and death to be agreeable, the forms are a mere mockery of the past; but grasses more readily adapt themselves to these altered conditions, for flatness is not so fatal to their grace, nor have they the brilliancy of colour that we find in flowers, while there is a certain dry and tough quality about them that, as contrasted with the succulence of many vegetable growths, is a still further advantage. Should our readers commence the collection of grasses, they will, we are sure, rapidly find the pursuit an interesting one, and they will probably have little idea until they actually submit the matter to this practical test of experience how great a number of grasses may in almost any district be found, or how varied they are in form and character.



HERB-ROBERT.

THE HERB-ROBERT.

Geranium Robertianum. Nat. Ord., Geraniaceæ.



HERB-ROBERT (*Geranium Robertianum*) is perhaps the commonest and, at the same time, the most graceful plant of a genus that contains several species, many of which are common, and almost all of them attractive, both in form and colour.

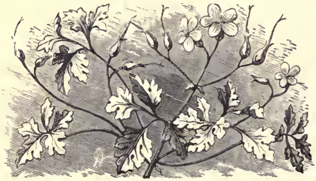
The meaning of the name is quite lost; various guesses have been made as to who this Robert was, and why the herb should have been thus dedicated to him, but all attempts to arrive at a satisfactory conclusion are vain. Some suppose that it is so called from St. Robert, a Benedictine abbot to whom the twenty-ninth of April is dedicated, as the Herb-Robert is then about coming into flower. Careful observations on the flowering of our various plants have been made for over nine years by a local natural history society of which we are one of the members, and we find from the records kept that the earliest date at which the plant has been found in flower is the 27th of April; the latest, May the 4th; the average date for nine years being the 30th of April, or one day after the saint's day. The plant when once found in flower may be met with throughout the whole of summer and autumn, and even at times almost to the close of the year, as we find in the records of the society above referred to that it has been found in blossom as late as the 2nd of December, and it is always possible, and in fact probable, that others of a still later date may have escaped notice. It is evidently much simpler to record the first appearance of a plant when its blossoms burst newly on the eye, than to say when the gradual disappearance becomes total.

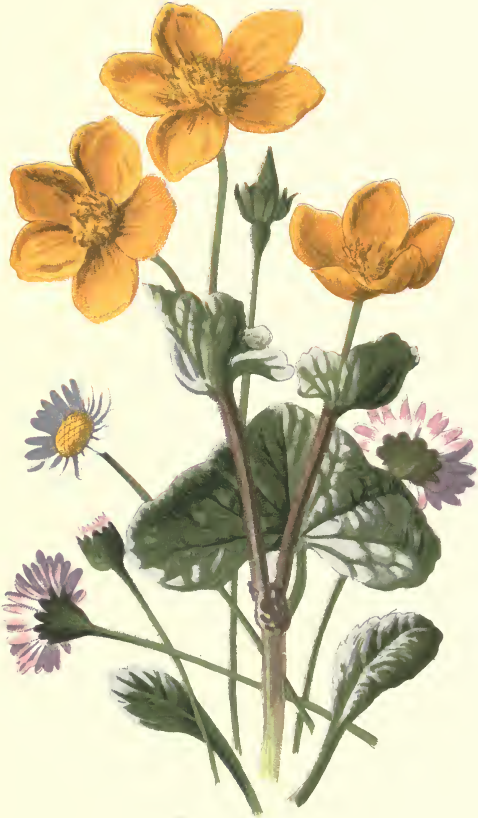
Many plant-names owe their interest to their connexion with mediæval legends or from the plants being dedicated, as was the custom, to certain saints; thus the yellow rocket, dedicated to St. Barbara, is on that account also called Herb-Barbara; the cowslip is called Herb-Peter from the pendant flowers faintly suggesting in form a bunch of keys, the badge of that apostle; the daisy is also called Margaret from its being in flower as early as the 22nd of February, St. Margaret's Day. The St. John's wort derives its name from the custom of gathering it with much ceremony upon St. John's Day, the 24th of June, for the purpose of keeping it in the house as a "preservative from thunder and the wiles of evil spirits."

In the Middle Ages the plant was held to possess considerable remedial efficacy; a theory has, therefore, been advanced that it may possibly owe its name to Robert, Duke of Normandy, for whom the "Ortus Sanitatis," a standard work for some hundreds of years, was written. It has long been a botanical custom to confer the name of any one whom it is desired to honour upon some plant, and one ordinarily with which they are in some way connected. The fuchsia and camellia are names given in honour of the introducers, the fuchsia, a native of Chili, being brought to Europe in 1788 by Leonard Fuchs, a celebrated German botanist; while the camellia, a native of Japan and China, derives its name from Jacob Kamel, a Jesuit missionary, who brought it with him to Europe in 1739. In scientific nomenclature we find the same principle observed, the *Goodyera* being so called from John Goodyer, a botanist in the reign of Queen Elizabeth, the *Koeleria* from Louis Koeler, the *Molinia* from Ignatio Molina: all men famous in their day as naturalists.

The Herb-Robert is sometimes called the Herb-Robin, though this is probably only a corruption of the more common name; it is also called Ragged Robin, Robin-flower, and Red Robin. The first of these names is more ordinarily bestowed on another flower, the meadow lychnis, or *Lychnis Flos-cuculi.* The name in any of these flowers is possibly a corruption of rob-wort, the red plant, as in the autumn the whole plant turns brilliant crimson, and then becomes especially noticeable. All the plants of the genus to which this belongs are called crane's-bills, a name bestowed upon them from the peculiar form of the seed-vessel or fruit. The generic name geranium carries the same meaning, being derived from the Greek word for a crane, *geranos.*

The Herb-Robert is an annual plant. The stems fork a good deal, hence the plant spreads considerably from this branching out of the parts, and becomes conspicuous amongst the taller plants of the hedge-row or waste ground, not by rivalling them in height, but by dispossessing them in the somewhat considerable area of ground that the spreading nature of the plant enables it to cover. The leaves are thrown off from the stem in pairs, and are divided into three or five deeply incised segments. The flowers, though rather small, are sufficiently bright in colour to attract the eye; generally a shade of pink, they may at times be met with of a pure white. The flowers always grow, as may be noticed in our illustration, in pairs, hence the plant is sometimes called by country folk, knife and fork. The stems of the Herb-Robert, like those of the stitchwort, and some other common plants, are rather brittle, swelling at the joints, and readily snapping at those points. The whole plant has a very strong and somewhat disagreeable smell, noticeable at any time, but especially on bruising the leaves or snapping the stems apart. A small variety, sufficiently distinct in character to have led some writers to class it as a species, is not uncommonly found by the sea-shore. It has been described as the *Geranium purpureum*, or *G. Raii*, but its claims to rank as an independent species are scarcely sufficient to justify this complete separation from the *G. Robertianum*.





DAISY & MARSH-MARIGOLD.

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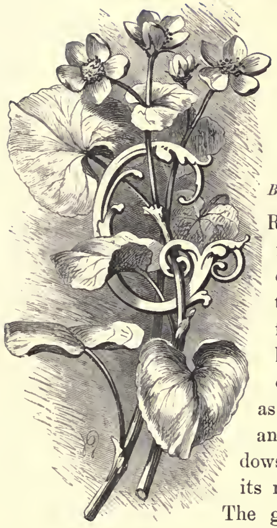


THE
MARSH MARIGOLD AND THE DAISY.

Caltha palustris. Nat. Ord., Ranunculaceæ.
Bellis perennis. Nat. Ord., Compositæ.

GROWING wherever the ground is damp, the marsh marigold, or *Caltha palustris,* is one of the more conspicuous spring flowers, and as such can scarcely have failed to attract the notice of most of our readers, occurring as it does in such great profusion, and making the low-lying meadows and river-sides brilliant with its masses of deep yellow flowers. The generic name is derived from the Greek word for a cup, and very appropriately points out one conspicuous feature, the large golden cup-like form of the blossoms. The specific name is derived from the Latin *palus,* a marsh, in obvious reference to one of its favourite places of growth, while the name marigold refers to its use in church festivals in the Middle Ages as one of the flowers devoted to the Virgin Mary. The *Caltha* is a perennial, and forms large tufts or masses. The stems are about a foot in height, generally erect, but at times creeping somewhat, and rooting again at intervals in the lower portions. The greater number of the leaves spring directly from the ground. The blossoms may ordinarily be met with by about the middle of March, and last until about the middle of June. The plant is closely allied to the various species of buttercup, but the flowers have no corolla, the brilliant yellow cup being composed of the five petaloid sepals. A variety is occasionally met with in mountainous regions in which the blossoms are much smaller and the foliage somewhat different in shape, but there would appear to be no sufficient justification for raising it, as some few writers have done, to the dignity of an independent species.

Every part of the plant is strongly irritant in its nature, and several cases are on record of serious effects produced by rashly experimenting on its powers. The buds have occasionally been used as a substitute for capers; the exchange is a very dangerous one, though possibly a long soaking in vinegar may go far to remove the acrid and poisonous nature of the buds in a fresh state.

Shakespeare refers once or twice to the flower; it appears to have been rather a favourite with him. The lines—

> "Winking Marybuds begin
> To ope their golden eyes"

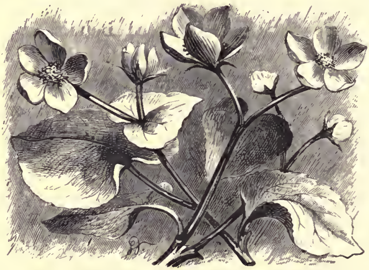
are a sufficient illustration of his use of the plant, though other instances will readily occur to the mind of the Shakesperian student. It is curious that in some parts of the country the marsh marigold is called the mare-blob, a name which it has been suggested may have been derived originally from mere-blob, in allusion to the habitat of the plant, but which we should imagine is more likely to be a corruption of this old name Mary-bud.

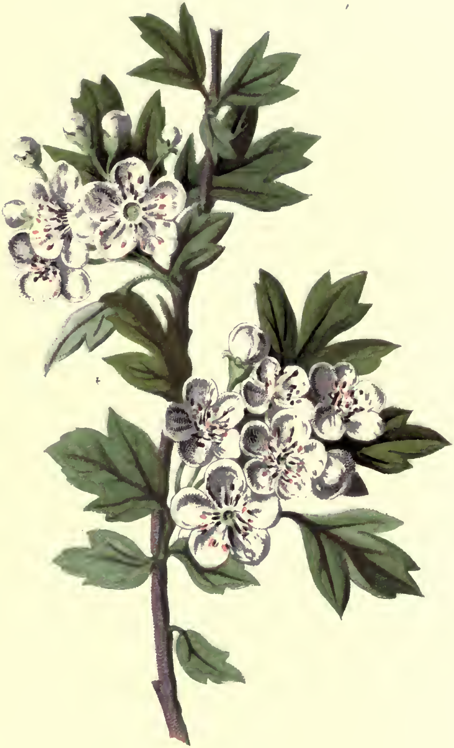
Sharing the plate with the marsh marigold is the well-known daisy, the universal favourite, the centre of so many rural and poetic associations that its insertion must surely seem to have been almost superfluous, though possibly its omission from the ranks of our familiar wild flowers would have been still more unpardonable, since it is one of the commonest of them all.

Into the wealth of poetical associations that clusters round this little wayside flower we must not here enter, as we have already, in our "Bards and Blossoms," gone at great length into the subject. Suffice it here to say that no other plant has received so marked a tribute. Wordsworth himself truly describes it as "the poets' darling." Botanically our little flower is the *Bellis perennis.* The generic name is derived from the Latin *bellus*, pretty or charming, though, according to some old writers, it owes its name to a dryad named Belidis. The specific name clearly refers to its perennial growth. The common name is a corruption of the old English name day's eye, a name at least as old as Chaucer's day, as, after speaking of its closing each night at the approach of darkness, he says—

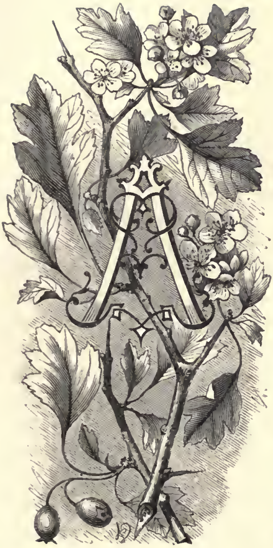
> "Well by reason men it call maie
> The Daisie, or else the Eye of the Daie."

It is in Scotland the bairnwort, a sufficiently expressive name as testifying to the joy the children feel in wandering in the meadows and gathering it by the lapful for the manufacture of daisy-chains. It is in France the Marguerite, a word derived from the Lat. *margarita*, a pearl. St. Louis of France employed as a device on his ring, a crucifix having beside it a lily, in allusion to the heraldic insignia of France, and a daisy, referring to the name of his wife Margaret, daughter of Raymond Beranger, Count of Toulouse, who accompanied him on the sixth crusade. The ring was thus the sign of all he held most dear—religion, his country, and his bride. In Wales the daisy is again the eye of the day, or Llygad y Dydd. The daisy is perhaps seen in greatest profusion in the early summer when the meadows are often a sheet of white from the countless blossoms, but it may more or less commonly be met with almost throughout the year. The plant is found in such abundance through Britain that any attempt at verbal description is entirely superfluous.





HAWTHORN.



THE HAWTHORN.

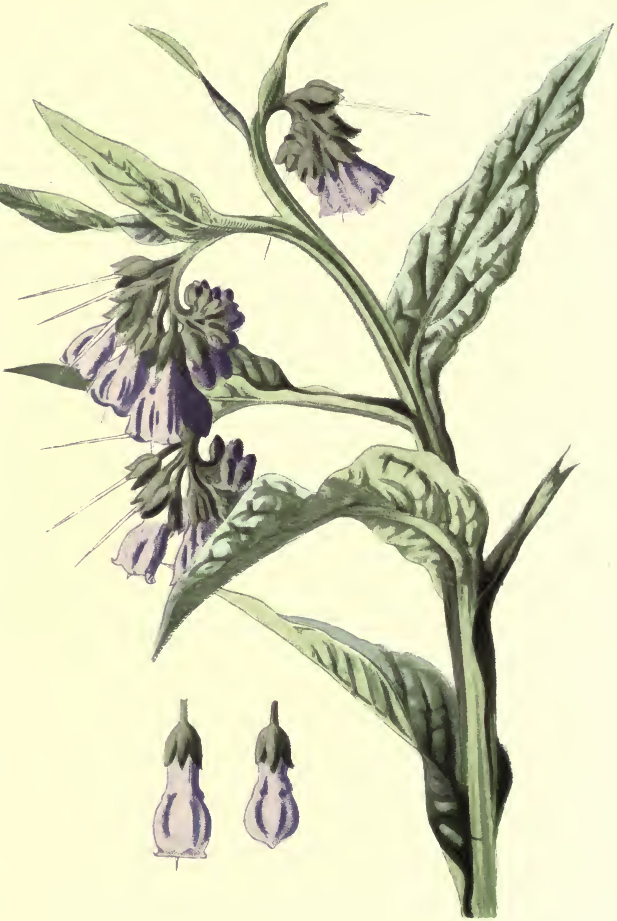
Cratægus oxyacantha. Nat. Ord., Rosaceæ.

AMONGST the many beautiful plants of the hedgerow—the guelder-rose, with its large heads of snowy blossoms, or, later on, its crimson berries scarcely to be distinguished amongst its crimson foliage; the maple with its beautiful leaf form and its bunches of quaint fruit, or the bramble with its silky blossoms and masses of luscious fruit—the hawthorn must, we think, be fairly given pre-eminence. Its masses of white flowers, the rich fragrance they yield, and the early season at which they may be found, are all features that combine to render it a general favourite. The hawthorn is known botanically as the *Cratægus oxyacantha.* The genus, of which this species is the only British representative, only differs from *Pyrus,* the genus containing the crab-apple and pear, in some few minor points, and like that, is spread over all the temperate region of the northern hemisphere. The plant is about equally well known under three names—hawthorn, whitethorn, or May. It owes its first name to the crimson fruit that loads it in the autumn; these berries are popularly known as "haws" or "haigs." The first name is in use in the south, the second in the north, of England. In the Anglo-Saxon chronicles the tree is the hagadorn, a name that closely resembles the modern German name for it, the hagedorn. The fruit is in Anglo-Saxon called haga; it is therefore the characteristic feature that has influenced the name of the shrub, while we indirectly learn another curious little fact—the great value of the tree even in those early times as a hedge-former—from the A.-S. word *hæge,* a hedge, the word being probably derived from the plant that had proved most valuable as a fencing, though it may either be that the hedge derives its name, as suggested, from the great use of this plant, or possibly that the plant itself, on the other hand, is called hedge-thorn, from its utility in hedge-making. Whichever view be taken, it does not affect the interesting fact of its use in the hedgerow at this early period. The name whitethorn is applied to the shrub to distinguish it from the *Prunus spinosa,* or blackthorn, though it might well be allowed to stand on its own merits as a very fairly expressive name for a thorny bush that during its flowering season is one mass of snowy-white blossoms. The third name is given to it from the time of the year when it is in full flower—it is one of the most typical and beautiful flowers of the month of May. In the names of several plants a reference to the time of their flowering may be detected. We find it, for instance, in the Christmas-rose, while by many old writers the daffodil is called the Lentlily; the pasque-flower is so called from its being met with about Easter, the great paschal feast.

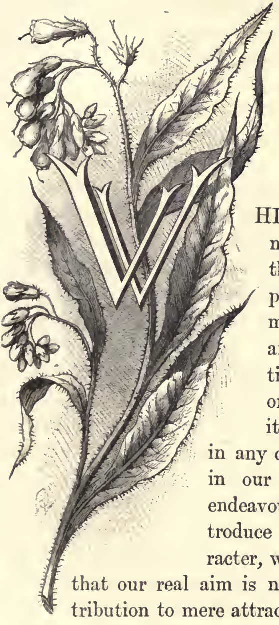
The hawthorn, though ordinarily seen as a hedgerow plant, may at times be found as a small tree. When thus met with it is a sufficiently striking object, and altogether different from the plant that has suffered the restraint and discipline of the clipping shears. The branches are often wonderfully gnarled and twisted together, and have a look of strength and hoar antiquity that bespeaks respect. In most forests, these old hawthorns may be met with, and during the early summer the air is fragrant with the delicious odour wafted from their countless blossoms. The hawthorn will ordinarily be found fully in flower by about the middle of May, and by about the middle of June the last few blossoms will be fading.

Before the alteration of the style, the hawthorn was one of the great features of the decorations of the once famous festivities of May-day. It is very rarely now found in blossom so early, as the effect of the alteration of the style was to throw the first of May many days earlier.

Considerable variation of form may be met with in the foliage and of colour in the flowers and fruit. The leaves are stalked and divided into three or five segments; in some examples these are soft and flowing in outline, while in others the forms are very acute, the indentations very sharply defined. The flowers, though ordinarily white, may at times be found of a more or less decided pink or even crimson; whatever their colour, they are grouped in little clusters together on short leafy branches given off at frequent intervals from the stem. The form of inflorescence is that known botanically as a corymb. Near Glastonbury Abbey stands an old hawthorn that has been the subject of many legends, the current belief, however, being that it sprang from the staff of Joseph of Arimathea, who, it is asserted, was the first preacher of Christianity to Britain, and who, to convince the benighted islanders of his mission, thrust his staff into the ground, where it at once budded and blossomed. The tree has ever since flowered, not only at its proper season, but also at each Christmas, the anniversary of its miraculous origin. A piece that came under our notice on December 16th had eight bunches or corymbs of flowers on it, each of these was composed of from twenty to thirty blossoms and buds, about a dozen of the flowers in each corymb being fully expanded. The blossoms were a little smaller than would ordinarily be looked for, but had all the beauty and regularity of form and the characteristic hawthorn scent of the normal plant. The only thing abnormal in the appearance of the spray was the absence of the foliage. The Glastonbury thorn is not absolutely unique, some few others, as at Romney, and near Nantwich, possess the same peculiarity of flowering twice, first in May and again about the end of the year.



COMFREY.



THE COMFREY.

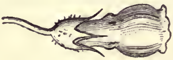
Symphytum officinale. Nat. Ord., Boraginaceæ.

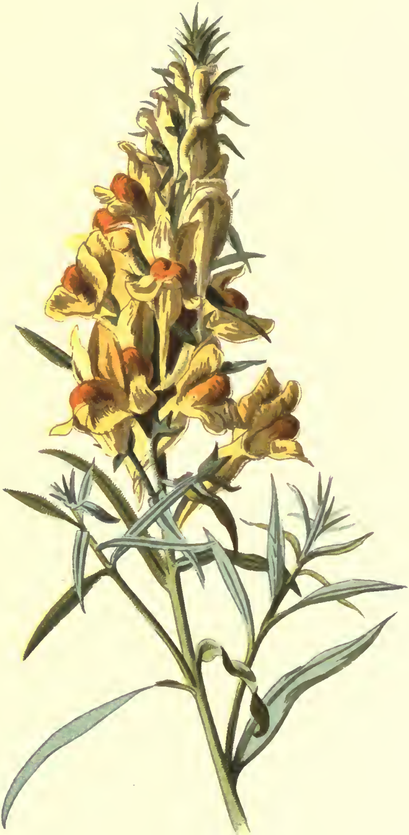
WHILE not so attractive as many of our wild plants, the subject of our present plate nevertheless possesses many features of interest that amply repay a closer examination than it would, we fear, ordinarily get bestowed upon it, while its commonness would, in any case, fairly entitle it to a place in our pages, for though we have endeavoured, as far as may be, to introduce plants of an attractive character, we do not cease to bear in mind that our real aim is not to subordinate general distribution to mere attractiveness; we therefore neither insert a plant for its beauty merely, nor refuse it admission, common as it may be, because it may not hope to compete with more attractive flowers.

The comfrey is the *Symphytum officinale* of botanical science. The first, or generic, name is derived from the Greek verb to unite, from the supposed vulnerary qualities of the plant. The only other species in the genus that is indigenous in the British Isles is the tuberous comfrey, or *S. tuberosum*. This latter plant, though to some extent resembling the common comfrey, is, in several respects, very distinct; it is seldom more than a foot high, not branching out, and the flowers, though about the same size individually as those of the *S. officinale*, are in much smaller masses. The common comfrey attains to a height of three feet or even more, and branches very freely. Its leaves are broadly lanceolate in form; the lower ones, which are somewhat like the tobacco plant in shape, are on long stalks, while the upper and more visible and conspicuous are stalkless, and are what is botanically termed decurrent, *i.e.*, a portion of them runs down the stem, the body of the leaf being continued beyond its base and point of attachment with the stem. This very conspicuous feature is one not often met with in plants, and will greatly tend to aid its identification with those unacquainted with it. It may be very well seen in the various species of thistles, but the spiny nature of these is sufficiently decidedly marked to render any hesitation between them and the present plant impossible in any attempt at identification of the comfrey, by means of this feature of its growth. The racemes of flowers are given off in pairs, and are what is known as scorpoid in form, the curve they always assume suggesting, as the word implies, the curve of the tail of the scorpion. The flowers are all placed on one side of the stem, and the gradual tapering from the fully expanded blossom to the final and almost imperceptible bud at the extremity of the curve is a very curious and beautiful point to be noted. This scorpoid form may be very well seen again in the forget-me-not, the subject of another of our illustrations. The large tubular flowers of the comfrey are generally of a yellowish or creamy white, but they may often be found purple in colour, as represented in our illustration. In some districts the one colour, in others the other, is predominant, but very often the two may be found growing side by side, and it is therefore difficult to assign any satisfactory reason for the variation in colour. It does not arise from greater development or superior advantages of position, nor from geological influences of soil, potent as these often are; the contiguity of the two plants to each other, and the facility thus afforded for comparison, renders any of these theories untenable. The common comfrey is abundantly met with in England, but is rare in Scotland; the tuberous comfrey is commonly found in Scotland, but is seldom met with in England; the one is rarely found above Aberdeen, while the northern counties of England are the extreme southern limit of the other. Except in the narrow zone of country common to both there will, therefore, be no possibility of mistaking the one species for the other.

The southern or common comfrey is the species whose supposed medicinal, or rather surgical, effects have given the name to the genus, and its specific appellation *officinale,* as the word officinal is a further testimony to the old belief in its powers of healing.

The comfrey delights in rich moist ground; it is therefore often met with in the mass of vegetation fringing the sides of our rivers, or in damp, low-lying meadows. The flowers first appear about the fourth week in April, and the plant may after this date be found in blossom throughout the whole of the summer, and late into the autumn. Except those who have really tested the question for themselves few persons realise with what regularity all the operations of nature are carried on. "He appointeth the moon for seasons; the sun knoweth his going down," and what is true of great things is not less true, though less obvious, in small. All lovers of plants will have noticed how regularly each falls into its appointed time and sequence. The comfrey, we have said, may be expected in the fourth week of April; we have gone over the data of the Marlborough College Natural History Society, and find in the nine years, from 1865 to 1873 inclusive, the following dates of first appearance. All are in April, we need therefore only give the day of the month, *viz.*:—30th, 28th, 29th, 27th, 16th, 21st, 23rd, 24th, and 20th. These observations, though not absolutely reliable, as it is quite possible the plant may have been in blossom a day or two before being noticed, are, nevertheless, the result of the careful watching of a considerable number of observers, and are at least sufficiently accurate to illustrate the matter referred to. We find that the requisites of our space forbid our saying anything of the medicinal qualities of the comfrey; but as these are now discredited, it is the less necessary to regret the omission. It suffices, therefore, to say that as "an herb of Saturn," it was deemed cold in quality, and applied in consequence to all inflammatory ailments. This division of plants into warm and cold by old writers is exceedingly arbitrary. Probably, in the case of the comfrey, the damp, low-lying localities in which it is found influenced its position in the strange mixture of astrology and botany that was current in the Middle Ages.





TOAD FLAX

THE TOAD-FLAX.

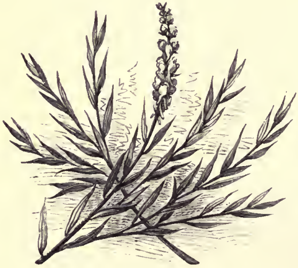
Linaria vulgaris. Nat. Ord., Scrophulariaceæ.

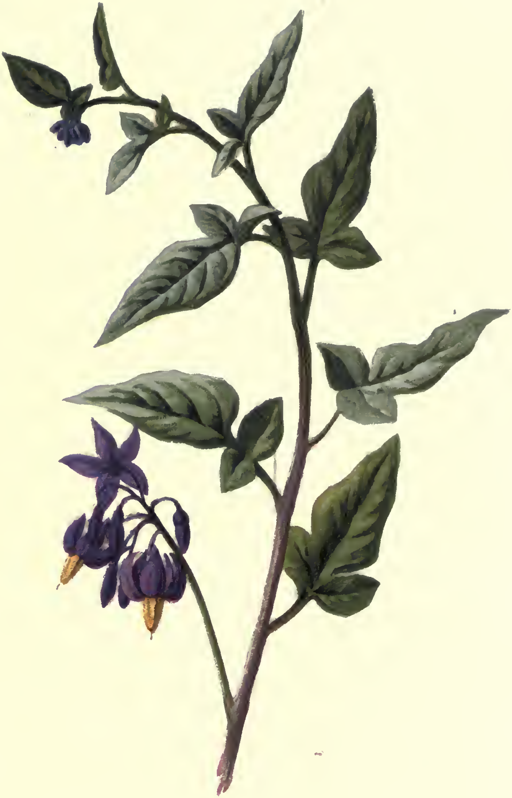
WE meet with the toad-flax, or *Linaria vulgaris* of science, very commonly throughout England, Ireland, and Wales, but in Scotland it is only found at all commonly in the south; in the northern counties it may at times be seen, but it may then be considered one of the rarer plants. It is almost exclusively a plant of the hedgerow, where its upright growth, its profusion and the brilliancy of its blossoms, tend to make it a somewhat conspicuous and very pleasing feature. The plant flowers from July to October. It is a perennial.

The stems are very erect and branch but slightly; they are ordinarily between one and two feet high, though at times this may be exceeded. Both stem and leaves are of what is termed botanically a glaucous green—a term employed to express a pale bluish tint of green accompanied by a slight bloom on the surface—and are almost entirely without the hairs that form so conspicuous an addition in many plants. The leaves are very numerous, and very long and narrow in form. The flowers are large, of a pale but beautifully pure tint of yellow over most of the blossom, but having one portion a deep rich orange. It is asserted that the smell of the flowers is very obnoxious to flies, and that they may be kept out of a room by keeping toad-flax in it; but we have never ourselves thought to put the matter to the proof. The present species, though from its commonness ordinarily merely called toad-flax, is in botanical works distinguished as the yellow toad-flax, as a means of identifying it amongst the numerous other species of the genus that are indigenous to our islands. The blossoms of the toad-flax always grow in a rather compact mass at the summit of the stem, and form a very handsome termination; this feature may be very well seen in our illustration. The flowers are of a rather peculiar form, and very similar to the garden snap-dragon, a plant belonging to an allied genus, and possibly better known to some of our readers than this wild flower. The flower of the toad-flax is, however, if anything, just a little more quaint and curious than that of the snap-dragon; both have the same large lip-like forms that, when pressed open, suggest the yawning mouth of some fierce monster, but in the toad-flax the flower bears in addition a very curious spur at its base. A remarkable, but not altogether rare, variety of the plant is met with at times—though we have never ourselves been so fortunate as to come across it—in which all the blossoms have five spurs and other singular modifications of form that can hardly be well defined in so brief a space as we can spare. As all the flowers of the plant are of this abnormal character, the general appearance is very peculiar in itself, and very distinct from the normal effect. The fruit following the blossoms is a rather large capsule, somewhat egg-shaped, and full of large seeds. With the exception of the one remarkable variation already referred to, the plant is subject to very little change—abnormal forms are very rarely met with. The flowers appear to form a welcome shelter to many small insects. While making the drawing of the plant for our plate, we found several small beetles ensconced beneath the upper member of the flower—in the very jaws of the dragon, in fact—and two or three other kinds of insects were in like position.

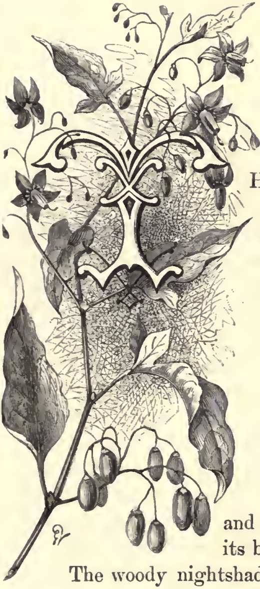
The generic name of the plant is taken from the Latin *linum*, flax, the general appearance of this and one or two other species being, when not in flower, not at all unlike the true flax. In the old writers we find the name toad-flax is applied exclusively to those species that have narrow and flax-like leaves; the present plant is also sometimes called wild-flax or flax-weed from this accidental resemblance. The prefix "toad" was do doubt added—on the same principle as we may see "dog" employed — as an indication of worthlessness, because the thing, while looking like a plant so serviceable, was, after all, spurious and valueless. According, however, to some old writers, it is so-called because the flower has "a mouth like unto a frog's mouth." A few plant-names arise from a certain sense of humour on the part of those who first started them. Thus hemp, from its use in providing the halter for the law's dread requirement, is in some old books called gallows-grass, while others call it neck-weed; and this grim jesting changes into contempt in the names, dog's orach, dog-violet, hog-fennel, swine's-cress, and horse-mint. The fool's parsley may also here be cited, as the plain inference is that it is a worthless counterfeit of a plant of great use, and that none but those to whom the prefixed name fully applied would eat this poisonous herb in mistake for the garden plant which it slightly resembles. The toad-flax is often known in country districts as the butter and eggs, the pale yellow suggesting the first part of the name, the deep orange standing for the yolk of an egg. It is also often called wild snapdragon.

The only other species of the genus that can fairly claim to be classed amongst our common plants is the ivy-leaved toad-flax (*Linaria cymbalaria*). Though not truly a native of Britain, it has in many places so thoroughly established itself as to claim abundant recognition. The plant is small, and grows in the fissures of old damp walls. The leaves are somewhat fleshy, deep green above and often dull purple beneath. Flowers small, purple and yellow in colour. The whole plant is very graceful in appearance, as its long trailing stems, clothed with delicate leaves, hang in masses from some rugged and moss-grown wall.





WOODY NIGHTSHADE.



THE WOODY NIGHTSHADE.

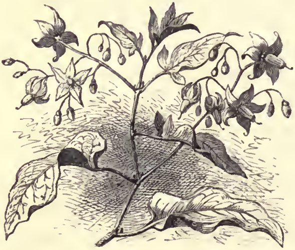
Solanum Dulcamara. *Nat. Ord., Solanaceæ.*

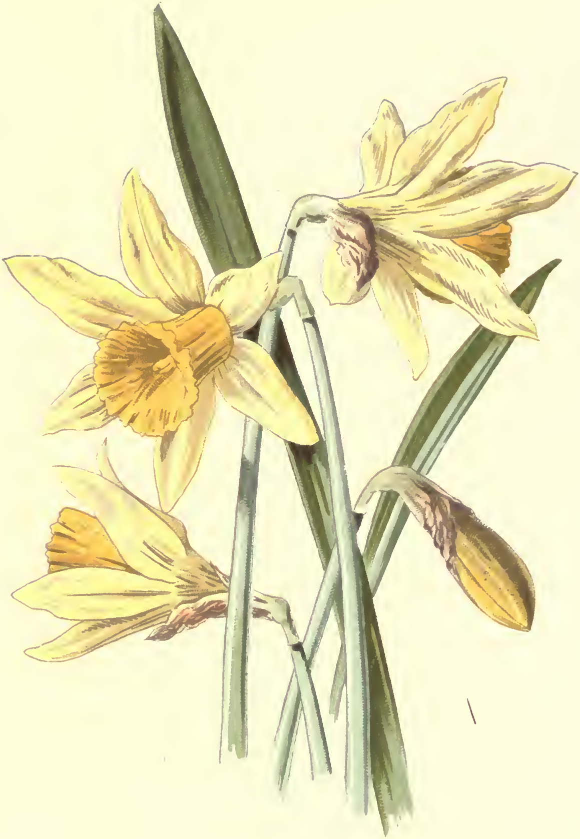
THE woody nightshade, though by no means so conspicuous nor so attractive as many of the plants that meet the eye in a country ramble, is too common a denizen of our hedgerows to be omitted from our series, and it will, we think, in addition, be found to be not without a certain beauty of its own in the quaint form of its flowers and foliage, in the rich contrasts of colour in the parts of the blossom, and the variety of tint observable in its bunches of fruit.

The woody nightshade is a shrub throwing out long branches that climb and straggle for a considerable distance over the hedgerows, in which the plant is almost always found. It is never met with standing alone, but when in some tangled thicket or old hedge it can find the needful support to its weak stems, they run for many feet over and among the other plants. The leaves are all borne on stems; the form of the foliage is subject to a very con-

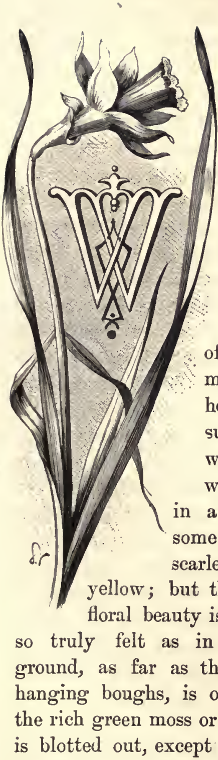
The woody nightshade is the *Solànum Dulcamara* of the botanist. The generic name is derived from the Latin word *solamen,* solace or consolation, and refers to the comfort and relief that the properties of some other species of the genus afford from their narcotic properties. The specific name is equivalent in meaning to one of the plant's names, the bittersweet, and it is also in some old herbals called the *Amaradulcis,* because the stems when first tasted appear bitter, a sensation soon followed by a considerable degree of sweetness.

The only other English species is the common, or black, nightshade (*S. nigrum*), so called because its fruit when ripe is jet black. Its blossoms, of similar form to those of the woody nightshade, are pure white. It is very commonly to be met with in fields and on waste ground. It is the petty morel of the older herbalists, the deadly nightshade, a plant of another genus, being the great morel.





DAFFODIL



THE DAFFODIL.

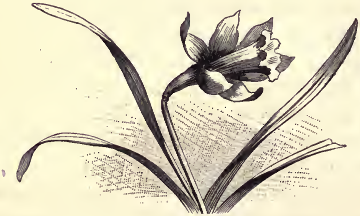
Narcissus pseudo-narcissus. Nat. Ord., Amaryllidaceæ.

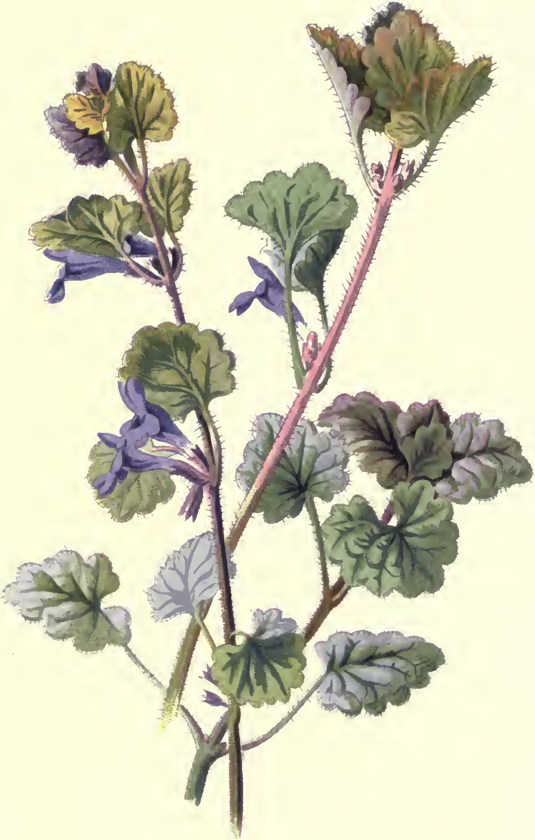
WITH the exception of the hyacinth, the subject of another of our illustrations, there is, perhaps, no wild flower that makes so grand a show during the brief period of its existence as the daffodil. We may sometimes see in places the hedges white with hawthorn, or the surface of the stream sheeted over with the countless blossoms of the water-buttercups; we may sometimes in a field note where the poppies in some spots give a bright streak of scarlet, or the charlock a mass of golden yellow; but the sense of profusion and wealth of floral beauty is, after all, nowhere and at no time so truly felt as in the woods in spring, when the ground, as far as the eye can reach beneath the overhanging boughs, is one mass of gold or purple, where the rich green moss or the dark brown of the fallen leaves is blotted out, except at one's very feet, by the countless thousands of daffodils or hyacinths. In a large wood, near where we now write, this beautiful sight is an annual treat, and the people from the neighbouring town carry them off, both hyacinths and daffodils, in great handfuls; but such is the profusion, that no amount of gathering seems to reduce them in the least. If the bulbs of the daffodil be taken up carefully a little before the time of flowering, the change does not appear to affect them, and in a fortnight's time they will be blossoming quite freely, and they then form a very pleasing centrepiece for the drawing-room table. After flowering, the bulbs should be taken up and put in the garden, but the plants, though they did not appear to feel the removal at the time, will not blossom the next year, though after then again they will have become quite established in their new home, and will flower as freely as at first, if placed in a somewhat moist and shady situation. We are told that at an international conference once held, the representative of Great Britain was the most conspicuous figure present, as his breast alone was bare of jewelled stars and orders, and in like manner we may consider the daffodil to be truly remarkable, for while almost every other plant in our flora had some healing virtue, justly or empirically assigned to it by our old herbalists, and many of them were each individually a whole armoury in themselves against the attacks of almost every disease, we are unable to find a single medical reference to the daffodil. To compensate for this neglect on the part of the followers of Æsculapius, it is one of the favourite flowers of the poets: Drayton, Herrick, Wordsworth, and others would readily supply illustrations of this appreciation.

The leaves of the daffodil are about a foot in length, and of the same character as those of the wild hyacinth. From the midst of the foliage rises the stem, slightly overtopping the leaves, and bearing a single flower. The blossoms, as will be seen by our illustration, are of a peculiarly graceful shape, and of a bright yellow colour, the central being somewhat deeper in tint than the rays of the perianth. Unlike the hyacinth, the fragrance of which is borne far and wide on the breeze, the flowers of the daffodil are scentless. The plant, as we have seen, is more especially a dweller in the woods, but it may at times be found in moist meadows, though even then ordinarily beneath the welcome shade of some isolated or hedgerow tree. The first week of March is about the average date of the appearance of the flowers, and by the middle of April their beauty is a thing of the past.

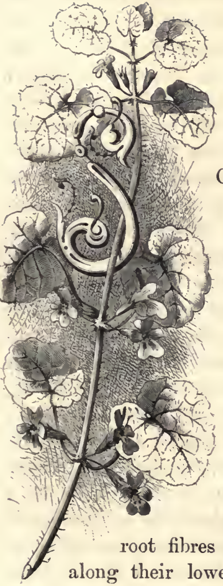
The daffodil is the *Narcissus pseudo-narcissus* of the botanist. The genus takes its name from the narcissus flower, and the meaning of the name of our present plant may be roughly given as the narcissus-like flower. The word *narcissus* itself is derived from the Greek word for stupor, and refers to the very powerful scent of the flowers; though, according to other authorities, the name is rather given from the assumption that this is the plant into which, according to the classic myth, related by Ovid, the youth Narcissus was changed. The daffodil, vulgarly called also the daffy-down-dilly, or the daffy, derives its name from a certain resemblance that it bears to the asphodel—the one word is a corruption from the other. It is in France the *fleur d'asphodèle.*

The true narcissus, *N. poeticus,* is placed by some writers in the flora of Great Britain, but its claims, unfortunately, are slight. Its blossoms are pure white, with the exception of a ring of bright red as a bordering to the nectary. The odour, though too strong to be agreeable to some persons, is very rich and fragrant, and has, with the beauty of its snow-white flowers, led to its frequent cultivation. The *N. biflorus*, the two-flowered narcissus or primrose-peerless, as it is sometimes called, is an allied species; the flowers are of a pale straw-colour, and, as the specific name implies, grow in pairs at the summit of the stem. Though ordinarily met with as a garden flower, it would appear to be truly indigenous, though only met with in some few localities. The genus has been largely cultivated by florists. A very common variety of the ordinary daffodil is the double yellow; it is in almost every cottage garden, but, to our thinking, it will not stand comparison in beauty with the wild single flower. Several other garden modifications of the daffodil may be met with, together with numerous varieties of narcissus and jonquil. Most of these garden representatives of the genus originated with the Dutch florists, whose skill in the rearing of all bulbous plants is too well known to need any comment.





GROUND IVY



THE GROUND-IVY.

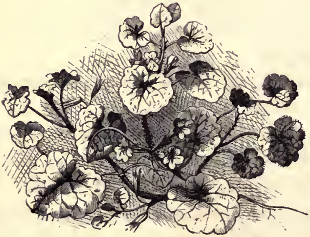
Nepeta Glechoma. Nat. Ord., Labiatæ.

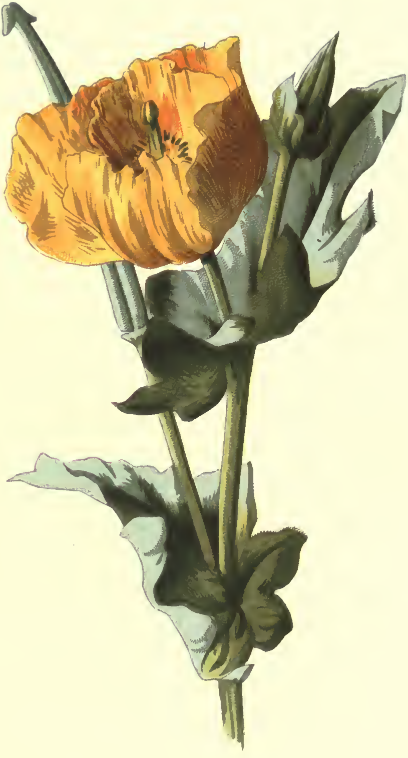
SO abundantly is the ground-ivy distributed that though it is by no means a conspicuous plant, it is almost certain sooner or later to attract the attention while the eye is scanning the hedge-row. The plant is a perennial, and grows so freely that a large area is quickly covered with a carpet of its leaves. The stems are procumbent, a botanical term applied to such as are feeble in nature, and trail throughout the greater portion of their length along the ground, and root fibres are freely given off at intervals along their lower portion, hence, like the strawberry or banyan tree, this power of re-rooting itself enables it to spread and retain possession of the ground covered at a long distance from the parent root. From these running stems the upright flowering stems are given off; these flowering stems rarely attain beyond eight inches in height, though at times, when the plant is struggling for existence amidst tall grass or other herbage, our estimate may be considerably exceeded. The general outline of the leaves is almost a circle, though the modification produced by the two conspicuous rounded lobes at the base has led to the foliage often being rather described as reniform or kidney-shaped. The outline of the leaf is not simple in character, as in the privet and many other leaves, but is made up of a considerable number of rounded lobes or projections. The lower leaves of the plant are often much larger than the others, and are generally on much longer stems; all the leaves are arranged on the stem in pairs, and have a rough and hairy or downy texture according as they are old or young. The whole plant has a very perceptible and not altogether agreeable odour; this naturally becomes still more noticeable if the stems or leaves are bruised at all. All the leaves of the ground-ivy are of the same general character; in many plants a very considerable difference in many ways may be observed between the upper and lower leaves, the radical or floral forms, but any such difference is very slightly marked in the present example. The flowers are almost always a shade of purple, though, like the heath, hyacinth, and almost all other purple flowers, they are at times found of a pure white. The blossoms are placed in a little semicircle at the point whence the leaves are given off from the stem; from three to six blossoms will ordinarily thus be found together, but it is a distinct and noticeable feature in the ground-ivy, as opposed, for example, to the yellow nettle, and many other plants of the order, that the flowers never form a complete ring round the stem, the whorl of flowers is always unilateral, never circular. The flowers are bi-symmetrical in form when seen in front view, not radiate as in the buttercup, and of the type known as labiate, from a remote resemblance to a human mouth and lips. In this form of corolla the upper lip is ordinarily divided into two parts, and the lower one into three, and the blossom of the ground-ivy is no exception to this general characteristic. The whole order consists of flowers having this lip-like form; they are hence termed *Labiatæ*. The white and red nettles already figured, and the bugle, the thyme, the betony, and the self-heal are other examples of the order.

The ground-ivy may be met with freely on hedge-banks and waste ground throughout Britain, the flowering season being from about the middle of March to the middle of July. The flowering shoots are often very rich in colour, the stems and leaves are of various shades of red and purple, and render the plant very conspicuous when growing in a large mass amidst the bright green leaves of the surrounding plants. Great variation of colour exists; in some cases the whole of the flowering stem is rich with this warm glow of colour, while in others only the few crowning leaves at the top of the spray show any deviation from the general green tint of the plant. It would appear ordinarily that when the plant is exposed to strong sunlight this richness of colour manifests itself, while the plants that grow in shady spots are larger and ranker, but without this beautiful variation of colour.

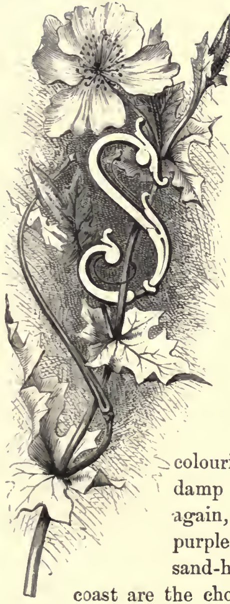
The ground-ivy is the *Nepeta Glechoma* of science, a name that is wrapped in a very decided degree of obscurity. Some writers affirm that the generic name is so called from Nepi, a town in Italy, though what a town in Italy has to do with the ground-ivy is a point that they do not enlighten us on; other authorities, no less valuable, derive it from *nepa*, a scorpion, affirming that the plant was a specific against the bite of this creature. As the plant grows freely in many other countries, and as in our own happy land in the good old times the scorpion was believed to be bred from many substances that are now credited with no such potent effect, the plant and the animal could actually or theoretically have been brought together, and that, at least, is a point that renders the etymology not hopelessly impossible. The remedial effect of the herb is a further point that may or may not be supported by facts. The common English name is a sad misnomer, as the plant has nothing whatever to do, botanically, with the ivy, nor, indeed, is there anything but the most superficial resemblance, not more, indeed, than the fact that the present plant and the ivy are both at times found trailing on the hedge-bank. In all other respects they are widely different.

Our ancestors used the plant for flavouring beer; it was supposed not only to improve its taste, but also to render it clearer. In old herbals the ground-ivy has a great many names, but as they are never used at the present day it is scarcely worth while to dwell on them at all, though some of them are not altogether lacking in history and interest when analysed.





YELLOW HORNED POPPY.



THE YELLOW HORNED-POPPY.

Glaucium luteum. Nat. Ord., Papaveraceæ.

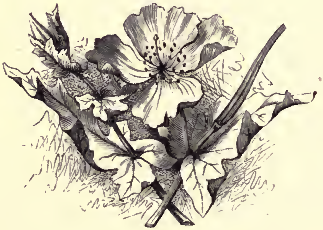
SCARCELY any spot, however unpromising it may appear, but furnishes some point of interest to the lover of plants. The surf-beaten rock is fringed with sea-weeds of beautiful form and colour; the deepest recesses of the forest are tapestried with the over-hanging fronds of graceful ferns, and studded with fungoid growths of the quaintest forms and richest colouring that flourish in the congenial damp and gloom. The bleak moorland, again, swept by every blast, is knee-deep in purple heather; and the bare reaches of sand-hill or pebbly beach that fringe our coast are the chosen home of some few plants that thrive where the fierce winds of ocean and the general sterility seem to forbid all hope of finding any floral life, or anything higher in the scale of vegetable forms than some perishing sea-weed torn from its rocky resting-place beneath the waters, and cast ashore to die by the rolling waves, that had heretofore rocked it in their rough embrace, and been its life and stay. It is in such an uninviting spot as this that the yellow horned-poppy, the plant represented in the present plate, is seen in perfection, growing in great tufts among the stones of the beach, or finding a home in some crevice of the rock, recalling to our minds the fine poetic imagery of one of the greatest poets that have ever lived:—"The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and blossom as the rose."

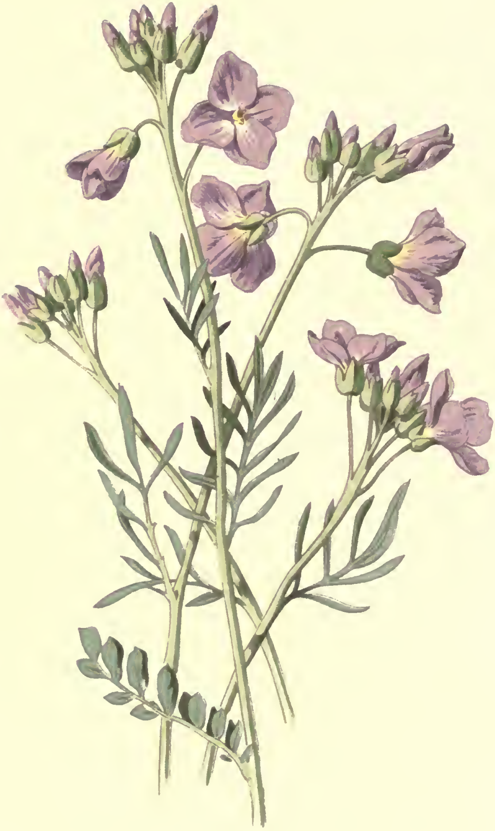
The yellow horned-poppy is found in flower from June to October. It was the *Chelidonium glaucium* of Linnæus and the early botanists, but in all modern systems of plant classification and nomenclature it is the *Glaucium luteum*. The generic name is derived from the glaucous, or sea-green hue of the foliage and stems. The Greek word *glaukos*, blue or grey, originally gleaming, very well describes the fine bluish-green bloom that is seen on the surface of the leaves. The specific name *luteum* refers to the colour of the flowers; it is the Latin word for yellow.

The plant is an annual, very sturdy in growth, attaining to a height of from one to two feet, but covering a considerable space, from the number of its widely-spreading branches and long, straggling pods. The leaves are very thick in texture, to enable them to bear the brunt of the exposed situation in which the plant is found, and the veining is almost lost to sight unless the leaves are held in such a position as to allow the light to pass through them. The lower leaves are stalked and divided into a series of lobes, the whole surface being covered with short hairs, while the upper leaves clasp the stem, and are much simpler in form, and smoother in appearance and to the touch, though even these are what is botanically termed scabrous in character, a term employed to define a certain roughness of texture, arising from the presence of a number of little harsh inequalities in the surface. The flowers spring on short stems from the axils of the leaves; they are large in size, and handsome both in form and colour, but only last in perfection a very short time, as the petals one after another very soon fall away. The flower has four petals, and two sepals. As in the case of the common scarlet poppy, already referred to, the sepals are thrown off on the expansion of the blossoms. The stamens are very numerous, and closely surround the conspicuous stigma, occupying the centre of the flower. The flowers are succeeded by the very characteristic pods that give the plant its common name. The limited space at our disposal has prevented our doing anything like justice to them in our illustration. The flowers are of the natural size, but we have had to rest satisfied with representing a pod in an early stage of its development. These pods ultimately grow about a foot long, and when some twenty or so of them, fairly well grown, are met with on a plant, they give it a peculiarly quaint effect. From the long time that the plant continues blossoming it will almost always be possible to find the flowers and pods in all stages of development, and to trace the pod from the specimen where it is just beginning to lengthen over the heads of the stamens, right up to the fully-matured example that requires a foot-ruler to do justice to its proportions.

The only other species in the genus is the *G. Phœniceum,* or scarlet horned-poppy. The flowers are scarlet, as the name imports, each petal having a black spot at its base. In most other respects it is not altogether unlike the yellow horned-poppy. It flowers in June and July, but is so very rarely met with in England, its claim to a place in our flora at all being even contested, that it is needless to dwell at any greater length upon it.

In speaking of the subject of our illustration, it must always be referred to, not only as the yellow, but also as the horned-poppy, as we have another yellow poppy, the *Meconopsis Cambrica,* or Welsh poppy. Its generic name is derived from two Greek words, signifying poppy and resemblance. The flowers are large and of a brilliant yellow. It is one of our rarer plants, and is chiefly to be looked for in mountainous districts. It is, however, a curious fact that within a mile or two of where we write these lines, full fifty miles from the coast, and with only such an approach to mountains as the great chalk downs of Wiltshire present, fine plants of both these yellow poppies flourish year after year. They are, we need hardly add, in the gardens of friends of botanical tastes, where they are duly appreciated and cared for. The yellow Welsh poppy is a perennial.

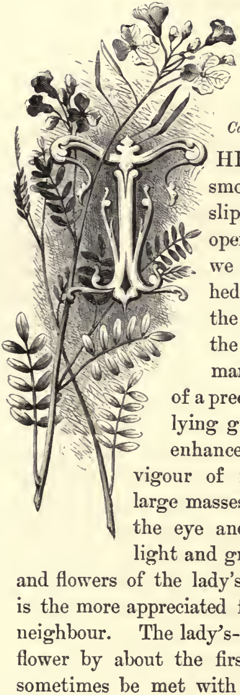




LADY'S SMOCK, BITTERCRESS OR CUCKOO FLOWER.

THE LADY'S-SMOCK.

Cardamine pratensis. Nat. Ord., Cruciferæ.



THE *Cardamine pratensis*, or lady's-smock, is, like the primrose and cowslip, one of the typical plants of the opening floral year. The primrose, we have seen, delights rather in the hedgerows and woods, the cowslip in the meadows and open downs, while the present plant shares with the marsh marigold—one of the subjects of a preceding illustration—the moist, low-lying grounds. The two plants mutually enhance each other's attractions, the vigour of form and brilliant gold of the large masses of marigold being intensified to the eye and mind by the proximity of the light and graceful growth, the delicate foliage and flowers of the lady's-smock, a grace and delicacy that is the more appreciated from the contrast with its sturdy neighbour. The lady's-smock will ordinarily be found in flower by about the first week in April, though it may sometimes be met with at a considerably earlier date; it continues in blossom until about the middle of June.

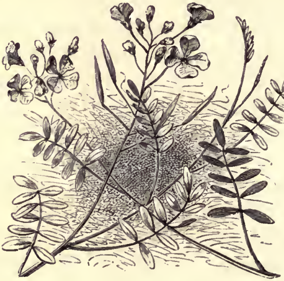
The lady's-smock is also less commonly known as the bitter-cress or cuckoo-flower. Its commoner name is sometimes written ladies'-smock, at first sight a not very marked difference, but a difference sufficient to build up a second theory of the origin of the name upon. The plant, we are told by some of the older writers, is called lady's-smock because, like many other graceful and delicate plants, it was dedicated in mediæval times to the Virgin Mary, to whom the title of Lady was largely given, as, for example, "Our Lady of good counsel," "Our Lady of succour," "Our Lady of mercy," and to these many other such titles might be added. This prefix is by no means uncommon; thus the parasitic dodder is also known as lady's-lace, the harebell as lady's-thimble, in obvious allusion to the form of the flower; lady's-finger, lady's-mantle, and lady's-slipper are other instances. The beautiful little ivy-leaved toadflax is also, by the Italians, dedicated to the Virgin under the name "Erba della Madonna." Ladies'-smock, on the contrary, we are told by other authorities, has no religious significance involved in it, but is only given to the plant because the meadows whitened over with its blossoms recall their appearance when at another time they are covered with the bleaching linen of the household, made by the busy fingers of the fair members of the family, not spinsters in name only but in very deed and most actual fact. Cuckoo-flower would not be at all a bad name for the plant, if confined to it, but unfortunately in popular parlance two or three other plants that also flower about the time the cuckoo arrives have had the same name bestowed on them, and a considerable amount of difficulty in identifying the actual species intended has therefore from time to time arisen. The name given in many botanical works, bitter-cress, points at once to its relationship with the watercress and other members of the same family, and to the pungent flavour of the plant when employed, as it sometimes is, in salads, the plant having formerly had a great reputation as an antiscorbutic. The plant is still, in many parts of the Continent, largely employed, and big bundles of it may be seen amongst the other vegetables in the public markets. In olden time it was considered a potent remedy in hysteria, epilepsy, and many other diseases; hence the name bestowed on it, *Cardamine,* a name derived from two Greek words signifying the heart and to overpower. Its near ally, the watercress, is, one need scarcely say, largely employed as an article of diet, and authorities assure us that the chloride of potassium and iodine it contains render it distinctly valuable as a food substance.

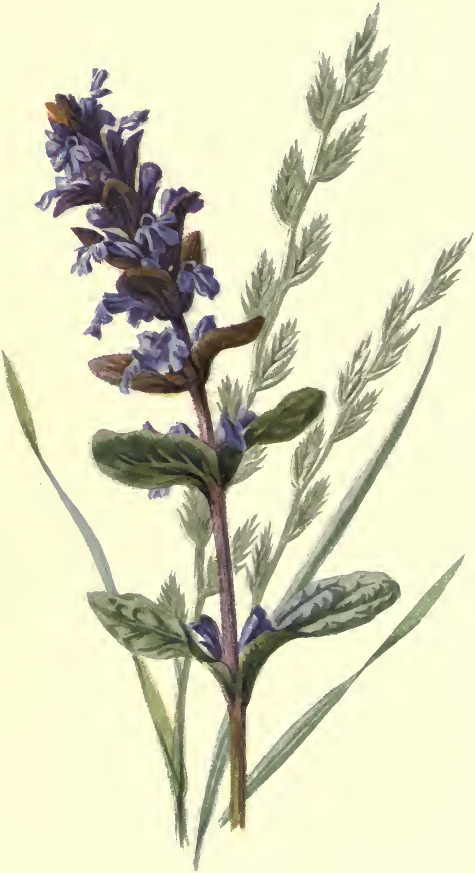
The lady's-smock is a perennial, and each year throws up a stem some twelve to eighteen inches high. The leaves that spring from the stem are pinnate in character, having numerous lateral leaflets. The radical leaves have the same general arrangement, but the leaflets are much fewer in number and considerably broader, and the terminal leaflet is much larger than any of the others. The radical leaves do not, like the stem leaves, catch the eye at a cursory glance, but must be sought amidst the grass, and can only be well seen by pulling up the entire plant. The flowers are large and attractive, and composed of four petals, arranged in a cross form—a conspicuous feature in the natural order to which the plant belongs—which is hence termed the crucifer or cross-bearing family. The blossoms are at times met with of a pure white, though more ordinarily of a pinkish purple, hence Shakespeare's line—

> "Lady's-smock all silver white,"

is scarcely as accurate as most of his descriptions of nature are if we examine an isolated plant, though as he speaks of this and other flowers as painting the meadows, it would rather appear that he refers to the general effect produced by the mass of plants spread over the pasture when the pale tinge of colour is lost in a general sense of white, and in this sense the line may very well stand.

As the flowers pass away they are succeeded by pods an inch or so in length. There are three other species of bitter-cress, but the one figured is that most commonly met with.





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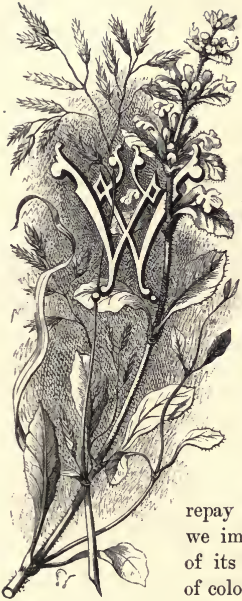


THE BUGLE AND TALL FESCUE GRASS.

Ajuga reptans. Nat. Ord., Labiatæ.
Festuca elatior. Nat. Ord., Graminaceæ.

WHILE quite as common in its occurrence in most parts of the country as its beautiful contemporary, the cowslip, the bugle is not by any means so well known. The general effect of the plant is dull and sombre, and its ordinary and formal habit of growth, added to its want of striking colour or form, are features that render it very liable to be overlooked. It is, nevertheless, a plant that will repay a closer examination than often, we imagine, falls to its lot, as the forms of its blossoms and the delicate harmony of colour seen in its upper leaves, flowers, and buds, in various tints of blending purples and greens, are points that are sufficiently attractive when fairly brought before the eye.

The bugle is the *Ajuga reptans* of the scientific observer. The generic name was first applied by Linnæus to the present plant, from a belief that this or some closely-allied species was the one referred to by Pliny and other classic writers by a very similar name—a name, it has been suggested, probably corrupted from *abiga*, a word itself in turn derived from the Latin verb *abigo*, to drive away. Like almost all common herbs, a considerable amount of medicinal power was ascribed to it in earlier times, a fact indicated in this derivation, the thing driven away through its potent efficacy being some one or other of the ailments of humanity. The specific term *reptans* is derived from the Latin word for creeping, and merely refers to one feature of its growth. We find the word used again in the *Potentilla reptans*, or cinquefoil, a plant having long trailing stems. The early writers, with that variation of spelling that is so marked a feature in old authors, speak of the plant as the abija, ajuga, abuga, and bugula, and the common English name bugle is clearly a corruption springing from these.

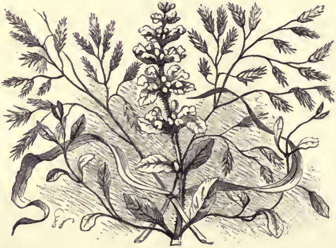
The root-stock of the bugle throws off several creeping stems, and from these rise the erect flowering-stems. These flowering-stems vary a good deal in height; where circumstances have been unusually propitious, or where a tangled undergrowth of coarse grass has made the plant draw up towards the air and sunshine, they may be found almost a foot in length, but ordinarily the half of this may be considered a fairly typical size. The leaves are very simple in form, and always grow in pairs; the latter feature is common, not only to all the plants of the genus, but to those of all the other genera included in the great family of labiate plants. The sage, mint, thyme, marjoram, ground ivy, betony, and dead-nettle are other familiar plants of the same great natural group. The flowers of the labiates are always only bi-symmetrical in form, not multi-symmetrical as in the buttercup or daisy, and have a tube terminating in a broad lower expansion, which is generally cut up into several lobes, and an upper portion, which ordinarily is simple in form. In the bugle the tube of the blossom is much longer than the calyx; the upper lip of the flower is short and inconspicuous, the lower lip is much larger and cut into three lobes. The flowers grow in a ring, or whorl, and spring from the axils of almost all the leaves. As the upper leaves are much closer together than those on the lower part of the stem, the head of flowers grows more dense. The whorls differ a good deal in the number of flowers constituting them; sometimes there will be but seven or eight in the ring, while in other cases eighteen or twenty may be found. The flowers are of a purplish-blue, and ordinarily the whole of the upper portion of the plant partakes of this colour. We have occasionally found a variety of the plant having white blossoms; in this the stem and leaves are pale green; there is none of the rich warmth of colour in the general mass of the flowering-stem that in the normal state of the plant—as in the ground ivy, again—is such a characteristic and pleasing feature.

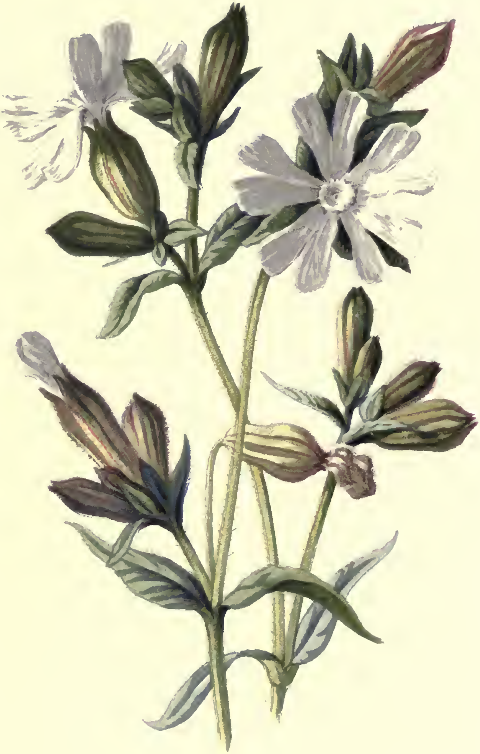
The bugle is found in damp shady pastures and woods, and is abundantly distributed throughout Britain. It will ordinarily be found in flower by about the end of April, and lasts in blossom till nearly the end of June. It is a perennial.

An allied species, the *Ajuga chamæpitys,* or yellow bugle, is not uncommonly met with in some of the southern and eastern counties of England. The leaves are very closely placed together, and each leaf is divided almost to its base into three very long and narrow segments. It is not altogether unlike the long needle-like foliage of the pine, and has hence received a second name, the ground-pine. The flowers are bright yellow, spotted with red; it is therefore, both in foliage and blossom, very unlike the present plant.

The common bugle was at one time much used as a vulnerary. "It is so singular good," an old writer tells us, "for all sorts of hurts in the body, that none that know its usefulness will ever be without it. If the virtues of it make you fall in love with it (as they will if you be wise), keep a syrup of it to take inwardly and an ointment and plaister of it to use outwardly always by you."

The grass figured with the bugle in our illustration is the *Festuca elatior*, or tall fescue grass, a graceful species commonly to be met with in moist situations. It assumes a considerable variety of form, the spikelets being sometimes arranged in a simple series, as we have them here represented, while at other times the head is much more spreading. It is a perennial, and flowers in the early part of the summer.

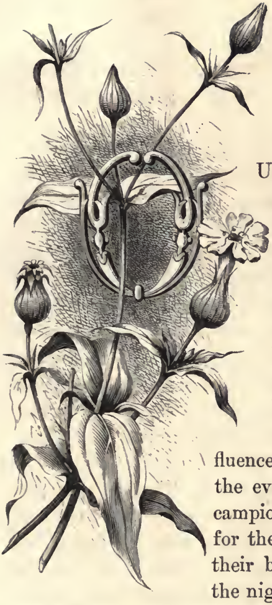




WHITE CAMPION

THE WHITE CAMPION.

Lychnis vespertina. Nat. Ord., Caryophyllaceæ.

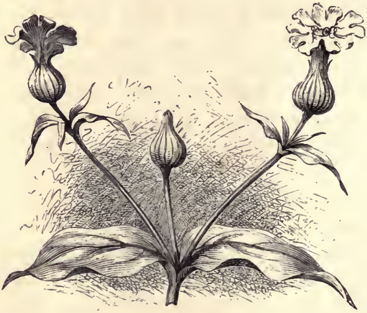


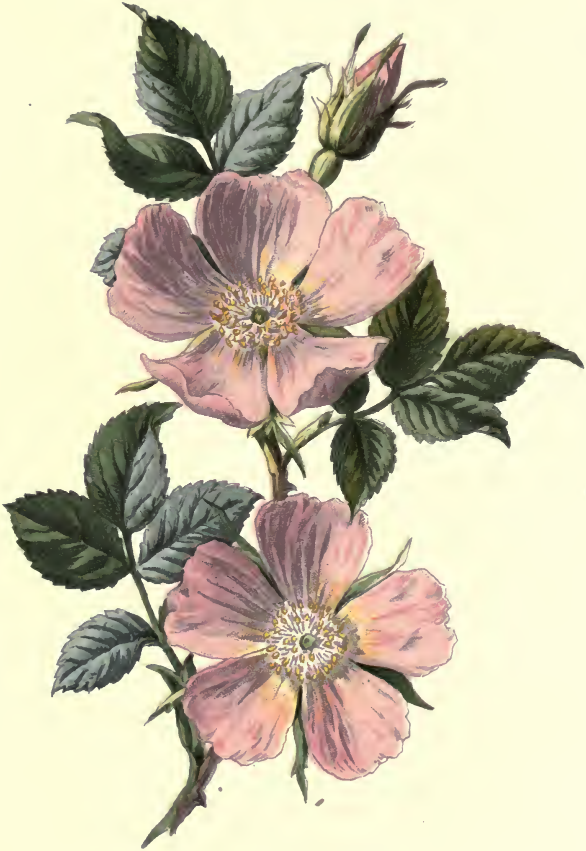
OUR present subject, graceful as it is in itself, has an additional charm arising from the circumstances under which we ordinarily find it. While most plants expand their blossoms very freely in the life-giving rays of the morning sun; while others, as the little pimpernel, will not expand at all if its genial influence be withdrawn—some few, like the evening primrose and the white campion, reserve their full sweetness for the closing hours of day, expand their blossoms to the chill dews of the night, and mingle their sweetness with the rich odours that float on the evening air in the woodland copse or the flower-sprinkled hedgerow. The pure white of its blossoms, and their large size, tend to attract attention; and in the gathering darkness its stellate flowers stand out from the gloom and indistinct forms of the hedge-bank like the starry host of heaven emerging one by one from the deepening twilight. The night-flowering catchfly, the *Silene noctiflora* of the botanist, a closely-allied plant, is also—as its name clearly demonstrates, both in the vulgar tongue and the scientific appellation—another of these flowers of the evening. Its blossoms are large and very sweetly scented, but not so purely white as those of the evening campion, being ordinarily reddish in tint.

The white campion is the *Lychnis vespertina* of botanical classification. The generic name is derived from the Greek word for a lamp. The name was first applied to the genus by the great Linnæus. Though one fails at first to see any special connection between the flower and a lamp, and is at the outset inclined to detect some recondite poetical allusion to the silvery gleaming of the blossoms in the dusk of the evening, the explanation of the term is much more prosaic. It is suggested by the fact, that the thick woolly substance that is so marked a peculiarity on the leaves of some of the species has either itself been used as a wick to a lamp, or is at least very similar to the material that some few other plants did render for such a service in olden time. The specific name *vespertina* is a Latin adjective, meaning that which pertains to the evening; another equally common and allied species, the red campion, being the *Lychnis diurna*, the specific name in this case being also Latin in its origin, and signifying that which belongs to the day. We have never seen any probable derivation given, or even suggested, for the common English name campion; but as the greater number of these names originated in the Middle Ages, when the monkish Latin influenced so many of the names given, we may, we think, not altogether unreasonably suggest that very possibly the Latin *campus*, an open field or plain, may have been the root of the vulgar name of a plant that is so distinctly campestral in its origin.

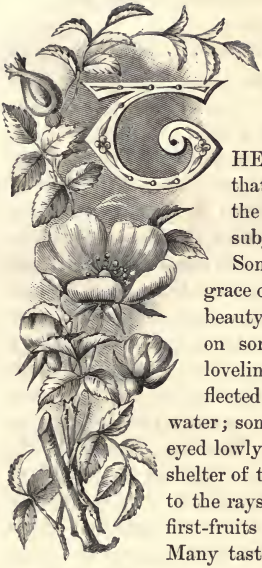
The white campion is very commonly met with in hedgerows and fields throughout Britain. It will ordinarily be found in flower by about the middle of May, and lasts in blossom until the end of October, or even later. It is a rather coarse-looking plant, the stems and leaves clothed with long and conspicuous hairs, and at the joints of the stems we often find a certain viscidity. The plant grows to about the height of two feet, and has a decidedly upright growth, but few branches being given off laterally, and those not diverging at any great angle from the line of the main stems. The leaves, as in all the plants that form the order, are arranged in pairs on the stem, and are of simple outline. In none of the plants of the order do we find the jagged or serrated edge to the leaf that is so marked a feature in the foliage of many other plants. The garden pink and the sweet-william are cultivated species of the order that will be easily accessible for the purpose of observation and comparison. The upper leaves of the white campion are stalkless, as shown in our figure, while the lower ones are borne on leaf-stems. The flowers are few in number, but conspicuous from the purity of their tint and large size; occasionally they are found of a pale pink, but this is a variation but seldom met with. The plant is ordinarily what is termed by botanists diœcious, a term used when all the flowers of a given plant are either all male, or stamen-bearing, or else female, pistil-bearing. A section cut downwards through the centre of the flowers will at once determine their nature; and, indeed, the external appearance of the calyx is, in the fully-developed flower, a sufficient indication, as it is much larger and rounder in form in the pistillate flowers than in those bearing stamens. Whatever be the nature of the flower, whether pistillate or staminate, both series of parts will be represented; though in the former case the stamens will be abortive and imperfectly developed, while in the latter it is the pistil that is in the imperfect and rudimentary condition. The plant is biennial.

The red campion is a very similar plant, though in this the petals are a deep pink, and the blossoms are scentless and fully expanded throughout the day. The plant is generally more delicate in form than the somewhat rank-growing white campion, and is commonly rather earlier in its flowering. It is equally abundantly met with, though ordinarily in more shaded and damper situations than those wherein its near relative, the white campion, flourishes.





DOG-ROSE.



THE DOG-ROSE.

Rosa canina. Nat. Ord., Rosaceæ.

THERE are, perhaps, few plants that are so generally admired as the beautiful flower that forms the subject of our present illustration. Some will admire the dignified grace of the foxglove, others the chaste beauty of the water-lily as it floats on some placid stream, and whose loveliness is doubled as it is reflected on the surface of the tranquil water; some again will cherish the meek-eyed lowly primrose, as it peeps from the shelter of the hedgerow, and unfolds itself to the rays of the sun, the harbinger and first-fruits of the coming floral splendour. Many tastes will find many beauties, but we think we may boldly say that whatever may be the reigning flowers in the hearts of their admirers, the charms of the wild rose, with its long wreaths of fragile flowers, will have gone far to lower them from their proud pre-eminence.

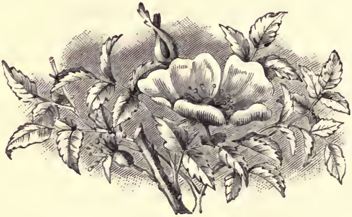
Of the recognition of the charms of the wild rose by the poets, it is not necessary to speak, nor need we here quote any passages to show the appreciation in which this flower has been held; many such references throughout the whole range of English literature will no doubt at once rise to the minds of most of our readers, or may readily be met with by a very little research.

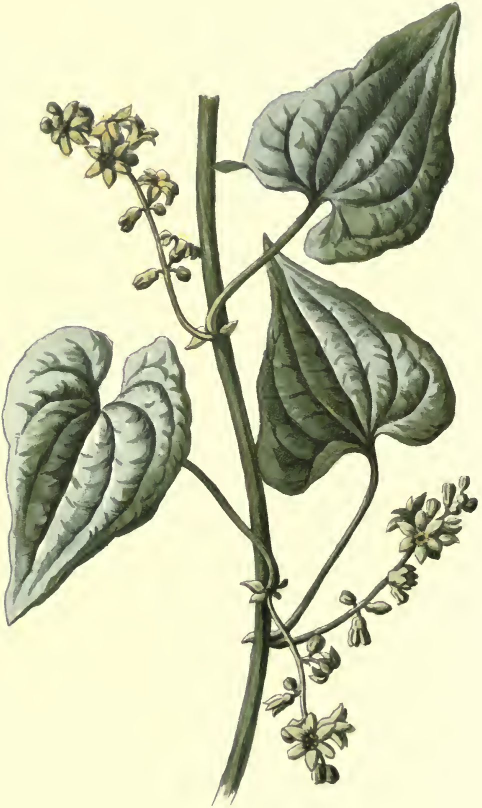
There are several species of wild rose indigenous to Britain; we have already in our series figured one other. The present species is the *Rosa canina*, or dog-rose. The derivation of the generic name is open to a little question, since some authorities tell us that it is taken from the Celtic *rhos*, others from the Greek *rodon*. The roots of both these words signify that which is red. As the Latin word for the plant is identical with the botanical generic name, and as most of our botanical terms are either Latin or Greek in their origin, it is probable that one or other of those languages supplied the scientific term, while it is equally probable that our common English name, rose, is a descendant in a direct line from the name given to the flower by our Celtic forerunners in Britain. It has been conjectured that the prefix "dog" was added to the flower to express its worthless quality. The term is undoubtedly often so used in old plant names. Thus the dog-violet is so called, because, though like the beautifully-scented species in many respects, it has no share of the fragrance that makes that so especially sought after. Dog's-camomile is so termed, because, though the plant bears much resemblance to the true camomile, it has not its most valued property—its medicinal virtue. Dog's-grass, a plant something like wheat, and belonging to the same genus, is, after all, but a counterfeit, and will never ripen into the full ear of corn; it fails in all that gives the other its value. It will be noticed in all these examples, however, that the plant thus branded is so marked because it looks like what it is not, and is inferior to what it thus resembles, but it will at once be seen that our beautiful briar is no counterfeit of some nobler plant, and it seems a piece of gratuitous insult to pass over all its charms, and merely to call it worthless. We can, therefore, only think that the prefix does not here bear the significance that it certainly does in many other cases. The specific name *canina*, its French name *rose de chien*, and its German name *hund-rose*, all tell against our view; but the specific name is probably by no means so old as its familiar English name; and the old botanists, finding it already dog-rose in popular parlance, possibly translated it without much question. It has been suggested by no mean authority that the name refers to its long prickly stems; *dagge* is an old English word for a dagger. The plant is well defended, and whosoever will bear off its blossoms must be prepared to face its thorns. The dogwood is certainly so called because the hardness of its wood makes it particularly suitable for skewers, and in the olden time, when iron goods were less accessible, it was employed in preference to any other for this service.

The dog-rose owes, no doubt, some of its popularity to the fact that it is a flower of the early summer; its blossoms expand in the early days of June, and last until about the middle of July. Later on, the wealth of floral beauty increases so rapidly that this association of particular plants with special seasons is to a great extent lost; but as we welcome the snowdrop and the primrose the more, beautiful as they are in themselves, because they tell us that winter is passing away, and the year is opening out, that the dark dull days are past, and the sunshine and awakening life of spring are at hand, so the wild rose sprays, breaking into wreaths of blossom, are the pledges of the glorious days of the coming summer.

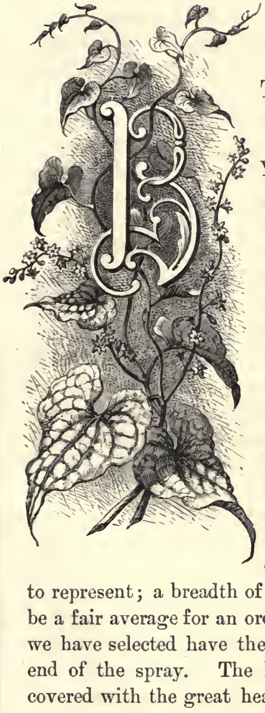
The general growth of the dog-rose is subject to a certain amount of variation, so much so, in fact, that the original species, as defined by Linnæus, has been, by later botanists, divided into four or five sub-species. It is doubtful, however, how far some of these divergencies from the type-form can be considered sufficiently fixed to give specific value; and in any case, in a work like the present, intended for the general reader, any attempt to analyse such minor points of distinction would be out of place.

The flowers vary considerably in colour, some being almost white, others a very deep pink, and have a delicate but very refreshing fragrance that is no slight addition to their charm.





BLACK BRYONY.



THE BLACK BRYONY.

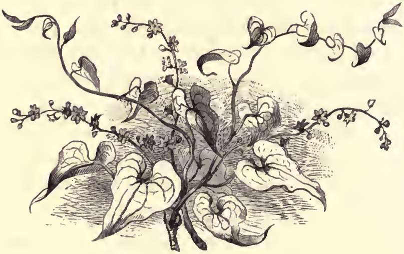
Tamus communis. Nat. Ord., Dioscoreaceæ.

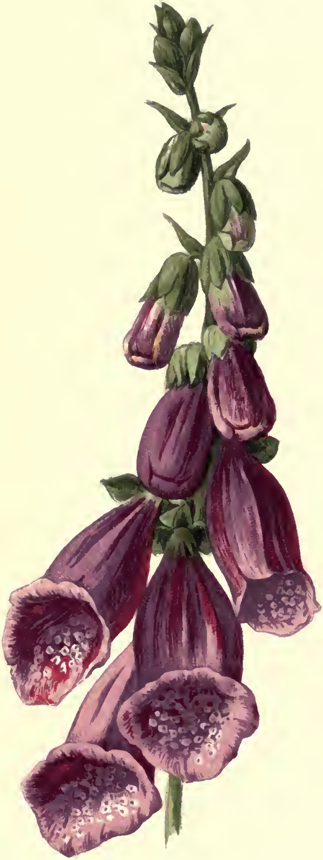
BY no means conspicuous as regards its flower, the present plant will probably be yet well known to most of our readers—to all who, with any appreciation of the beauties of nature, have wandered along our hedgerows in the long days of summer—for the foliage of the black bryony is one of the most graceful and most ordinary draperies that fringe and festoon the plants of the hedge or copse. The leaves are ordinarily very considerably larger than those the exigencies of our space would here allow us to represent; a breadth of six inches or so would probably be a fair average for an ordinarily developed leaf, and those we have selected have therefore been taken from near the end of the spray. The long trailing stems are thickly covered with the great heart-shaped leaves, and one of its most beautiful features, noticeable on pulling down some six feet of it from its attachment, is the delicate gradation of form and size from the great leaves of the lower portion to the lighter forms near the extremity of the stem. The last leaves are often not more than an inch in length. The brilliant gloss of the leaves is another feature that will at once attract the eye; the young leaves near the extremities are a somewhat pale and yellowish green, and have little of this polished surface, but the main bulk of the foliage—all that most readily catches the eye—is of a dark bluish-green, and has the glossy surface that is so characteristic a feature of the plant, and that makes it very noticeable amongst the other foliage up which it climbs or that surrounds it in the hedgerow or coppice.

The black bryony is the *Tamus communis* of botanical nomenclature. It is unfortunate that another of our English plants shares with this species the name of bryony, as thereby a slight amount of confusion from time to time arises. The present species is always termed the black bryony, in contradistinction from the other species, the white bryony or red-berried bryony, a plant that we propose to figure later on. A moment's glance at the two illustrations will at once suffice to show how different in every way the two plants are. The word bryony is derived from a Greek word signifying to shoot or grow rapidly, and is fairly expressive of both these quick-growing species; but it is not the less a misfortune that a name which might on this ground be equally well bestowed on a dozen plants, should in any case have been given to more than one. The generic name *Tamus* is given to the plant from the belief that it is the same as that referred to in the works of Pliny under the title of *Uva Taminia.* The meaning of the specific title is too self-evident to need any explanation.

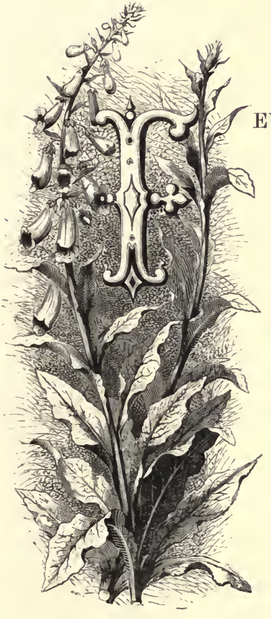
The roots of the black bryony are very large and fleshy; like most other things, they were, in the Middle Ages, accredited with healing virtues. They were ordinarily applied for rheumatism, but their irritant and acrid nature make them dangerous things to experiment with. The stems are very long, and twine amongst the branches of other plants. The flowers are greenish, and in character diœcious—*i.e.*, the stamens and pistil are in different flowers, the blossom of each plant being all of them of either one or the other form. The specimen represented in our illustration is a male, or stamen-bearing plant. The flowers are somewhat different in form, and the staminate blossoms are borne on longer stalks than the pistillate. The six little bright yellow dots in the centre of each of the flowers figured are the anthers of the stamens, the parts that in this, as in many other plants, are clear yellow in colour and covered with a dust-like substance called pollen. The flower is what is termed by botanists a perianth—a term applied when the outer ring that represents the calyx is very similiar both in form and colour to the next series of parts. In the buttercup, the corolla is bright yellow, the calyx green, and there is no resemblance between the petals and the sepals; but in many flowers, as in the lily, this difference is not so distinctly marked, and the term perianth is used to denote such a feature. In the flowers of the black bryony it will be seen that the parts of the corolla and calyx are quite alike in colour, and almost similar in form. The berries that succeed the pistillate blossoms are large, and of a deep crimson colour; the term red-berried bryony, applied to the other species, is therefore not in itself distinctive—it, in fact, points to a feature of resemblance, not one of difference; though, as the name is only applied to the other species, the *Bryonia dioca*, it becomes, by usage only, a means of distinguishing the plant intended. The great difference in the forms of the leaves is the most marked characteristic, and when that point is once remembered, the veriest novice cannot possibly err.

In spite of its specific title, *communis*, it is much commoner in some English localities than in others; but in both Scotland and Ireland it is a plant altogether unknown. It is not only the solitary English species in the genus, but the genus to which it belongs is the sole English genus in the botanical order; it is therefore the only representative we have of the *Dioscoreaceæ*, an order containing many species, but chiefly tropical in habitat. The yam is perhaps the best known of these.





FOXGLOVE.



THE FOXGLOVE.

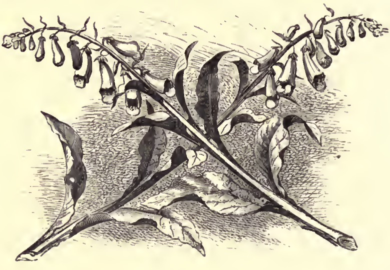
Digitalis purpurea. Nat. Ord., Scrophulariaceæ.

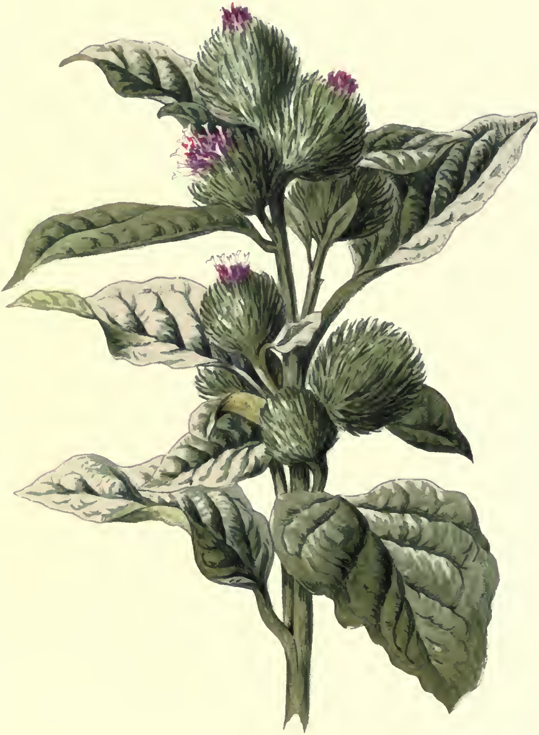
FEW, perhaps, of our plants excel in beauty the graceful foxglove, the subject of the present plate, and it may fairly be considered a general favourite; for though tastes proverbially differ, there are yet some points on which there is a very general similarity that amounts almost to unanimity. Whatever plants may be the special objects of admiration in the diverse minds and tastes of our readers, all will, we think, place the present plant, if not actually on the throne as queen of all, at least in a position very near to it. It is, practically, a better position to stand second in the regard of a numerous body of admirers, than in the first place in the estimation of but few: the latter may be but the result of caprice, the former testifies to general admiration—an admiration that the stately dignity and grace of the flower fully merit. One very fair test of the appreciation in which a plant is popularly held, is that its admirers transfer it from its native home that they may be able, in their gardens, to have more frequent opportunity of enjoying its beauty. This test is not of universal application, as some plants are too fragile to bear removal kindly, or too much wedded by nature to their wild homes to thrive in alien soil; but it may be accepted in a general way. Amongst the plants thus transplanted, we frequently find the foxglove; we, only this summer, saw a large garden in which there were hundreds of them in full blossom, and very beautiful they looked, rising in rows and masses behind the smaller plants in the borders and shrubberies. It appears to bear removal better than most plants, though any one who would see the foxglove in perfection, must see it as it rises from amongst the rocky *débris* on the mountain-side. In some parts of Wales and Devonshire we have seen it growing in such profusion, that hundreds of its long flowering stems could have been gathered in a space so limited, that to mention it would lay one open to a charge of gross exaggeration from those who have never had the good fortune to see a sight so beautiful. It may also commonly be met with in woods and on the hedge-banks throughout the greater part of Britain, though in some districts it is rarely or never met with in a wild state. The foxgloves in the garden that we have already referred to were the more prized because, though they throve excellently well, they were unknown in a natural state for miles and miles round. It appears to us curious that the plants should thrive and blossom abundantly in a garden in a thoroughly rural district, and yet that in the hedgerows around they should be so entirely absent.

The foxglove is the *Digitalis purpurea* of the botanist. The genus contains but this one indigenous species in our flora, though several other species are found abroad, and some of these occasionally find their way into our gardens. The generic name is a Latin word, and signifies that which pertains to the *digitus*, or finger; and in some parts of the country the plant is called finger-flower. The specific title indicates its colour, though, like most purple flowers, it occasionally varies to white. It is a plant of many names; but as these are mostly of local and provincial bestowal, we need scarcely stop to mention them, nor attempt to analyse their meaning. Thimbles, fairy's dresses, the mouths of tigers, lions, and dragons, and many other objects, have been pressed into the service, from the rustic desire to find some appropriate similitude.

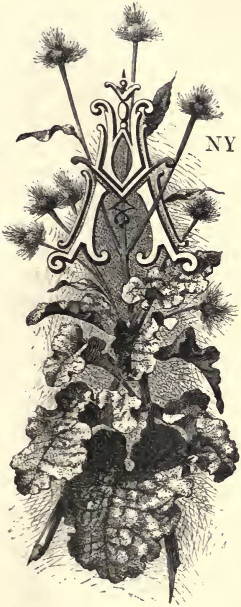
The foxglove ordinarily throws up one or more flowering stems; these are, on an average, from three to four feet high, though even this may at times be exceeded. These flowering stems give off a few leaves, that gradually diminish in size from below upwards; these are on the lower portion of the stem, the upper being occupied by the long line of graceful bell-like flowers. The radical leaves spread out like a large rosette; they are on long stalks, and of considerable size. The veins are a very prominent feature in all the leaves. The plant is ordinarily a biennial; in the first year, therefore, it forms the large tuft of broad and rugged radical leaves, and in the second year, at the appropriate season, the flower-stem is formed. It will sometimes continue to blossom for two or three years. It flowers from May to August. The blossom is campanulate in form, but its under surface is considerably dilated. The interior of the flower is very curiously spotted. The calyx is composed of five unequal pieces; four of these are broad, the fifth and upper one much narrower than the others. As the blossoms of the main stem gradually fall away, smaller lateral stems are often thrown out from the axils of its leaves, and these may be seen fully in flower when the central stem shows little else but the relics of bygone beauty. These lateral stems are also promptly thrown up if by any mischance the central and principal stem sustains any serious injury.

The foxglove has long been held in esteem for its medicinal properties. The leaf is the part employed, those of the second year of the plant's life being selected and gathered during the period the blossoms are out. It figures as the main ingredient in several preparations in the modern pharmacopœia.





BURDOCK



THE BURDOCK.

Arctium Lappa. Nat. Ord., Compositæ.

ANY one who wanders much amidst the hedgerows will probably, *nolens volens,* amongst his other floral treasures, bring home with him some portion at least of the present species. Though the plant is not in any way related to the dock family, its large lower leaves are sufficiently like those of the common dock to satisfy the not too exacting requirements of popular nomenclature; and to distinguish it from the other plant of that name, it is the burdock, or dock that bears burrs. Several other plants are, in popular estimation, docks simply because they bear large leaves of simple character. In some districts the big leaves of the white water-lily have procured it the name of flatter-dock, a corruption of "floating dock;" and, in like manner, the fine foliage of the butterbur—a plant common enough ordinarily by the banks of our streams—has caused it to receive the name, in local nomenclature, of butterdock. In earlier days the burdock was called the heriff, aireve, or airup: like most other old names, the spelling was freely varied. All these forms of the word have one common origin—the Anglo-Saxon words, *hœg*, a hedge, and *reafe*, a robber. It has been suggested that the derivation of these old names should rather be found in the A.-S. verb, *reafian*, to seize, but it is evident that the force of either word is the same; it is, therefore, immaterial which root is taken. The name is suggested by the way in which the sharply-hooked involucres seize and hold anything they touch; though it more frequently happens that, as they will not let go, they are torn off from the stem and carried away by the unconscious traveller, who may probably bear them about with him all day if they happen to stick on some part of his clothing not immediately under his notice. We have seen already that if two plants agree in some striking respect, no matter how different they may be in all else, they will, probably, in early writings be found to bear almost or precisely the same name. Bearing this in mind, we are not surprised to find that the cleavers, or goose-grass, shared with the burdock these old names of aireve and airup, covered as it is with small burrs, that tenaciously adhere to the clothing in exactly the same way as the larger ones of the burdock do. The scientific name of the burdock is the *Arctium Lappa:* the generic name is derived from the Greek word for a bear, the allusion again being to the rough texture of the involucres of the plant.

The burdock is a very common plant on waste ground and by the roadside. Its flower-heads will be found expanded during the latter part of the summer and well into the autumn. The plant is often four feet high, or even more; the lower leaves are very large, frequently more than a foot long, heart-shaped, and of a grey colour on their under surface, from the mass of fine down with which they are covered. The upper leaves are considerably less in size, more ovate in form, and not so densely clothed beneath with the grey down that is so marked a feature in the lower leaves. The involucre is almost spherical in form, and thickly covered with bracts, each terminating in a sharp point that is bent into a hook-like form—the peculiarity that enables them to grasp so tenaciously any suitable object that chances to touch them. The florets are all tubular, similar, and of a purple colour.

Though it is ordinarily held that we have but one species of burdock, it is a plant that varies a good deal in appearance; and some observers have held that these differences are sufficient, not merely to be recognised as varieties, but to justify them in creating four distinct species. It is, however, held by most botanists that the characters on which these specific differences are founded are scarcely sufficiently satisfactory to justify the division. The size of the flower-heads and of the whole plant, the abundance of the white cotton-like substance that is sometimes found on the involucres, or the absence of it, the length of the peduncles, and some few other minor points, are the features that, by their variation in different plants, have led to the attempt to set up forms of fixed and specific value.

For the ordinary observer, the long-established belief that we have but one species is amply sufficient for practical field-work; but as these varieties we have referred to are often met with, it may be well briefly to refer to them.

In that which is by some observers made a species under the name of *A. nemorosum*, the stalks of the lower leaves are hollow, flattened above, and somewhat angular. The flower-heads are large, almost stalkless, and usually placed in threes. In the next, the *A. minus* of some writers, the lower stems are hollow, almost round, and scarcely furrowed; the flower-heads are small in themselves, borne on small stalks, and scattered thinly along the branches. In the third variety, the *A. intermedium* of those who hold it to be a distinct species, the lower stems are hollow and slightly furrowed, the flower-heads borne on long stalks, the lowermost being the longest, and the involucre woolly. In the *A. Lappa*, the specialists tell us, the lower leaves have their stalks solid; but such a feature is surely, in any case, of but slight value. It suffers, too, under a practical disadvantage—the great difficulty that would often be experienced in getting these leaves at all, as the plant is not only eaten by many animals, but, from its growth by the roadside, is subject to all sorts of casualties.

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